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Drugs for Chronic Hepatitis C Infection: Clinical Review

Supporting Informed Decisions

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Drugs for Chronic Hepatitis C Infection: Clinical Review

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All authors approved the final draft report.

CONTRIBUTORS

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Drs. Sam Lee, Jordan Feld, and Alnoor Ramji for providing content expertise, contributing to the scope and protocol, and reviewing drafts of the report.

Dr. Lehana Thabane for methodological review of the clinical report.

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ABBREVIATIONS AND GLOSSARY

AE	adverse event
ASU	asunaprevir
BEC	beclabuvir
b.i.d.	twice daily
BOC	boceprevir
CADTH	Canadian Agency for Drugs and Technologies in Health
CDEC	CADTH Canadian Drug Expert Committee
CDR	CADTH Common Drug Review
CHC	chronic hepatitis C
CI	confidence interval
CrI	credible interval
DAA	direct-acting antiviral
DAS	dasabuvir
DCV	daclatasvir
DB	double-blind
DIC	deviance information criterion
DSEN	Drug Safety and Effectiveness Network
ELB	elbasvir
EPO	epoetin alfa
eRVR	extended rapid virologic response
GRZ	grazoprevir
HBV	hepatitis B virus
HCC	hepatocellular carcinoma
HCV	hepatitis C virus
HIV	human immunodeficiency virus
Ic	incidence of the event in the control group
LDV	ledipasvir
LOR	logarithmic odds ratio
MAGIC	Methods and Applications Group for Indirect Comparisons
METAVIR	Meta-analysis of Histological Data in Viral Hepatitis
NMA	network meta-analysis
NOC	Notice of Compliance
OMB	ombitasvir
OR	odds ratio
PAR	paritaprevir
PICO	population, intervention, comparator and outcome

PR	pegylated interferon plus ribavirin
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
q8	every 8 hours dosing regimen for DAA
q12	every 12 hours dosing regimen for DAA
q.d.	once daily
RBV	ribavirin
RCT	randomized controlled trial
RD	risk difference
RGT	response-guided therapy
RIT	ritonavir
RNA	ribonucleic acid
RR	relative risk
SD	standard deviation
Ser139	protease active-site serine
SIM	simeprevir
SOF	sofosbuvir
SVR	sustained virologic response
SVR12	undetectable HCV RNA levels 12 weeks after the end of treatment
SVR24	undetectable HCV RNA levels 24 weeks after the end of treatment
TB	tuberculosis
TEL	telaprevir

TREATMENT REGIMEN NOMENCLATURE

ABT12	ABT-530 for 12 wks
ASU12	asunaprevir 12 wks
ASU24	asunaprevir 24 wks
B24 PR28	PR × 4 wks then boceprevir + PR × 24 wks
B24 PR28 RGT eRVR	PR × 4 wks then boceprevir + PR × 24 wks if eRVR achieved RGT
B24 PR28-48 RGT	PR × 4 wks then boceprevir + PR × 24 or 44 wks RGT
B32 PR36-48 RGT	PR × 4 wks then boceprevir × 32 wks with PR 32 to 44 wks RGT
B32 PR36 RGT eRVR	PR × 4 wks then boceprevir + PR × 32 wks if eRVR achieved RGT
B32 PR36-48 RGT no eRVR	PR × 4 wks then boceprevir + PR × 32 wks, then PR × 12 wks if no eRVR achieved RGT
B24 PR48 RGT no eRVR	PR × 4 wks then boceprevir + PR × 24 wks, then PR × 20 wks if no eRVR achieved RGT
B44 PR48	PR × 4 wks then boceprevir + PR × 44 wks
BEC12	beclabuvir 12 wks
BEC12 (75 mg b.i.d.)	beclabuvir (75 mg b.i.d.) 12 wks
BEC12 (150 mg b.i.d.)	beclabuvir (150 mg b.i.d.) 12 wks
DCV12	daclatasvir 12 wks
DCV24	daclatasvir 24 wks
DAS12	dasabuvir 12 wks
ELB8	elbasvir 8 wks
ELB8 (20 mg)	elbasvir (20 mg q.d.) 8 wks
ELB8 (50 mg)	elbasvir (50 mg q.d.) 8 wks
ELB12	elbasvir 12 wks
ELB12 (20 mg)	elbasvir (20 mg q.d.) 12 wks
ELB12 (50 mg)	elbasvir (50 mg q.d.) 12 wks
ELB18	elbasvir 18 wks
ELB18 (20 mg)	elbasvir (20 mg q.d.) 18 wks
ELB18 (50 mg)	elbasvir (50 mg q.d.) 18 wks
GALEXOS	simeprevir
GRZ8	grazoprevir (100 mg q.d.) 8 wks
GRZ12	grazoprevir (100 mg q.d.) 12 wks
GRZ18	grazoprevir (100 mg q.d.) 18 wks
GS8	GS-5816 for 8 wks
GS-9451(6)	GS-9451 for 6 wks
GS-9669(6)	GS-9669 for 6 wks
Harvoni	ledipasvir/sofosbuvir
HOLKIRA PAK	ombitasvir/paritaprevir/ritonavir (fixed-dose single tablet) and dasabuvir
Incivek	telaprevir

LDV6	ledipasvir 6 wks
LDV8	ledipasvir 8 wks
LDV12	ledipasvir 12 wks
LDV24	ledipasvir 24 wks
OMB12	ombitasvir 12 wks
OMB24	ombitasvir 24 wks
PAR/RIT12	paritaprevir/ritonavir 12 wks
PEGASYS	peginterferon alfa-2a
PEGASYS RBV	peginterferon alfa-2a plus ribavirin
PEGETRON	peginterferon alfa-2b plus ribavirin
PR12	pegylated interferon plus ribavirin 12 wks
PR24	peginterferon alfa and ribavirin 24 wks
PR48	pegylated interferon 2a or 2b plus ribavirin administered for 48 wks
PR48 2a/2b	pegylated interferon 2a or 2b plus ribavirin for 48 wks
RBV8	ribavirin 8 wks
RBV12	ribavirin 12 wks
RBV16	ribavirin 16 wks
RBV18	ribavirin 18 wks
RBV24	ribavirin 24 wks
RBV (low-dose) 24	low-dose RBV (600 mg/day) for 24 wks
SIM12 + PR24-48 RGT	simeprevir + PR × 12 wks then PR x 12 or 36 wks RGT
SIM12 PR24 RGT eRVR	simeprevir + PR × 12 wks then PR x 12 wks if eRVR achieved RGT
SIM12 PR48	simeprevir + PR × 12 wks then PR 36 wks
SIM12 PR48 RGT no eRVR	simeprevir + PR × 12 wks then PR × 36 wks if no eRVR RGT
SIM12	simeprevir 12 wks
SOF12 + PR12	sofosbuvir + PR × 12 wks
SOF12 + PR24-48 RGT	sofosbuvir + PR × 12 wks then PR × 12 or 36 wks RGT
SOF8	sofosbuvir 8 wks
SOF12	sofosbuvir 12 wks
SOF24	sofosbuvir 24 wks
SOF24	sofosbuvir 400 mg/d for 24 wks
SOVALDI	sofosbuvir
T12 PR24 q8	telaprevir + PR × 12 wks, then PR × 12 wks q8h
T12 PR24 RGT eRVR q8	telaprevir + PR × 12 wks then PR x 12 wks if eRVR achieved RGT q8h
T12 PR24 RGT eRVR q12	telaprevir + PR × 12 wks then PR x 12 wks if eRVR achieved RGT q12h
T12 PR24-48 RGT q8	telaprevir + PR × 12 wks then PR x 12 or 36 wks RGT q8h
T12 PR24-48 RGT q12	telaprevir + PR × 12 wks then PR x 12 or 36 wks RGT q12h
T12 PR48 q8	telaprevir + PR × 12 wks then PR × 36 wks q8h
T12 PR48 RGT eRVR q8	telaprevir + PR × 12 wks then PR × 36 wks if eRVR achieved RGT q8h

T12 PR48 RGT no eRVR q8	telaprevir + PR × 12 wks then PR × 36 wks if no eRVR RGT q8h
T12 PR48 RGT no eRVR q12	telaprevir + PR × 12 wks then PR × 36 wks if no eRVR RGT q12h
VICTRELIS	boceprevir
VICTRELIS TRIPLE	boceprevir and peginterferon alfa-2b plus ribavirin

EXECUTIVE SUMMARY

Chronic hepatitis C (CHC) infection can lead to chronic liver disease, liver failure, hepatocellular carcinoma (HCC), and requirement for liver transplantation. For many years, standard therapy for CHC infection consisted of pegylated interferon plus ribavirin (PR). In 2011, the first direct-acting antiviral (DAA) agents, boceprevir and telaprevir, were approved in Canada for use in combination with PR for the treatment of CHC genotype 1 infection. Treatment burden for patients is high with PR-based therapies due to drug–drug interactions, large pill burden, rigorous dosing requirements, and significant side effects. Treatment regimens involving newer DAA agents have been developed; these offer advantages to patients that include activity beyond genotype 1, shorter treatment duration, fewer side effects and interactions with other medicines, and the potential for interferon-free treatment. They may also offer advantages to particular groups of patients who have historically been difficult to treat. However, any added benefit offered by these novel DAA treatment regimens must be considered in the context of the high cost for these therapies. Since late 2014, Health Canada has approved Harvoni (an interferon-free combination of ledipasvir [LDV] and sofosbuvir [SOF]) and HOLKIRA PAK (a combination of a dasabuvir tablet [DAS] and an ombitasvir [OMB], paritaprevir [PAR], and ritonavir tablet [RIT], which may also be combined with ribavirin [RBV]). Daclatasvir (DCV) in combination with SOF has also recently been approved for use in Canada for patients with genotypes 1, 2, and 3 infection.

In 2014, CADTH completed a therapeutic review evaluating the clinical and cost-effectiveness of treatments for CHC genotype 1 infection. This review focused on DAA regimens approved in Canada at the time for the treatment of genotype 1 CHC infection, all of which were PR-based. In anticipation of the need and demand for supporting evidence and information regarding the comparative effectiveness of new regimens for CHC infection, CADTH has updated its therapeutic review to include recently approved and emerging regimens for the treatment of CHC infection (genotypes 1 through 6), including interferon-free regimens.

Objective

The objective of this systematic review was to assess the comparative efficacy and safety of currently available and emerging regimens for the treatment of CHC infection (genotypes 1 to 6).

Policy Questions

There were three policy questions for the project. These reflect the information needs of provincial and territorial decision- and policy-makers:

1. How should interferon-free DAA regimens be listed for reimbursement for CHC infection (genotypes 1 to 6)?
2. Should reimbursement of regimens for CHC infection be guided by fibrosis staging and limited to fibrosis stages ≥ F2?
3. Should re-treatment with a DAA regimen be reimbursed for patients with CHC infection who fail to achieve sustained virologic response (SVR) on another DAA regimen?

Research Questions

Five research questions were developed to address the aforementioned policy issues:

1. What is the comparative efficacy and safety of treatment regimens for patients with CHC infection (genotypes 1 to 6) who are treatment-naive?
2. What is the comparative cost-effectiveness of treatment regimens for patients with CHC infection (genotypes 1 to 4) who are treatment-naive?
3. What is the comparative efficacy and safety of treatment regimens for patients with CHC infection (genotypes 1 to 6) who have relapsed or had a partial or null response to prior PR or DAA + PR or DAA-only therapy?
4. What is the comparative cost-effectiveness of treatment regimens for patients with CHC infection (genotypes 1 to 4) who have relapsed or had a partial or null response to prior PR or DAA + PR or DAA-only therapy?
5. For questions 1 to 4, how do the comparative efficacy, safety, and cost-effectiveness of treatment regimens vary across population subgroups based on fibrosis level (METAVIR score ≤ F1, F2, F3, or F4), cirrhosis stage (e.g., compensated versus decompensated), genotype subtype, post-liver transplant, baseline viral load, HIV and CHC coinfection, hepatitis B (HBV) and CHC coinfection, and tuberculosis (TB) and CHC coinfection?

This Clinical Review Report addresses the questions related to comparative efficacy and safety. Questions related to cost-effectiveness are addressed in the accompanying Cost-Effectiveness Analysis Report.

Methods

This report updates CADTH's previous Therapeutic Review report on DAA agents for CHC genotype 1 infection, published in October 2014, and expands the scope to include hepatitis C virus (HCV) genotypes 2 to 6, as well as recently approved and emerging regimens. The systematic review followed a protocol written a priori and vetted by clinical experts and methodologists. The review was conducted in line with the *Cochrane Handbook for Systematic Reviews of Interventions*.

The strategy for building and analyzing the evidence base for the treatment of CHC infection consisted of two fundamental steps. First, a broad systematic review of the available evidence in the published literature for the outcomes specified in the protocol was undertaken to update the literature search for genotype 1 performed for the previous therapeutic review, and to identify all studies for genotypes 2 to 6. Second, a network meta-analysis ([NMA] also known as an indirect treatment comparison) was conducted to compare the available treatment regimens reporting outcomes of interest.

The literature search from the 2014 CADTH therapeutic review on DAAs for CHC genotype 1 infection, originally conducted on January 9, 2014, was updated for this review on February 4, 2015. The updated search incorporated several additional DAA regimens that were not included in the original report. Alerts were run monthly and regular search updates were performed on databases that do not provide alert services. The last alert from which studies were selected for inclusion in the review was received on May 1, 2015. A list of included studies was posted in April 2015 to seek stakeholder feedback.

The main regimens of interest for this review were those:

- Currently approved by Health Canada for the populations of interest in this review

- Considered of clinical relevance based on inclusion in Canadian[1] or US clinical practice guidelines,[2] or
- Considered to have a high likelihood of regulatory approval in Canada in the near future (i.e., within approximately 12 months) based upon information available to CADTH as of February 2015.

The main efficacy outcome of interest was SVR at 12 or 24 weeks. Key safety outcomes were rash, depression, and anemia.

Assessment of bias in comparative randomized studies was completed using the Cochrane Risk of Bias tool (APPENDIX 9). Where data were sufficient for appraisal, we evaluated single-arm studies using criteria applicable for the evaluation of case series.

The lack of head-to-head trials in this therapeutic area, combined with the use of single-arm cohort studies, made it difficult to compare the relative efficacy of the different treatment regimens. We performed a Bayesian NMA to assess the various treatment options for CHC infection. This method allowed for comparisons between regimens based on direct and indirect evidence. We made adjustments to conventional NMA methodology in order to incorporate the single-arm evidence. The single-arm studies were included in the NMA by creating a "virtual" study in which a comparator arm matched for patient characteristics was selected for each single arm incorporated into the analysis. Where the available studies for a particular genotype could not be assembled into an NMA due to the lack of a common reference treatment, supplemental literature searches were conducted to identify evidence from meta-analyses or key primary studies (including observational studies, if needed) for a clinically appropriate reference treatment that would allow construction of a network.

Separate analyses were performed for each genotype for SVR, and within each genotype, analyses were separated by subpopulations based on prior treatment experience with PR (with or without DAA) or DAA alone, as follows:
- Treatment-naive
- Treatment-experienced
- Treatment-experienced with prior relapse
- Treatment-experienced with prior partial response
- Treatment-experienced with prior null response.

Within each of these five subpopulations, analyses were further separated by the presence or absence of cirrhosis. The analyses for genotype 1 were further separated by genotype subtype (1a and 1b).

Analysis of safety events was performed separately in treatment-naive and treatment-experienced patients; however, data were pooled across genotypes.

Summary of Findings

A total of 67 studies reported in 63 publications were included in this review. Included studies predominantly reported on patients with CHC genotype 1 infection, or a mix of patients with genotype 1 and other genotypes. Eleven studies reported on patients with CHC genotype 2 infection, 11 on genotype 3, eight on genotype 4, two on genotype 5, and three on genotype 6.

While this review was comprehensive in its scope with respect to available and emerging regimens of interest, SOF + LDV, PAR/RIT + OMB + DAS ± RBV, and DCV-based regimens were the main focus of the review because these regimens are already available in Canada or expected to be approved soon, based on information available in early 2015.

Efficacy — Sustained Virologic Response at 12 Weeks

A summary of the NMA results for patients with CHC genotype 1 infection is provided in Exhibit 1. This table contains a summary of results by patient subgroup and previous treatment experience, and highlights treatment regimens that significantly improved SVR compared with other regimens listed in the table. In particular:

- For treatment-naive patients, SOF + LDV, PAR/RIT + OMB + DAS ± RBV, and DCV-based regimens were superior to PR, with SOF + LDV and PAR/RIT + OMB + DAS ± RBV also achieving SVR significantly more often than simeprevir (SIM) + PR, SOF + PR, and SOF + RBV. In some cases, SOF + LDV and PAR/RIT + OMB + DAS ± RBV were better than DCV-based regimens. There was less evidence for patients with cirrhosis.
- For treatment-experienced patients, all three of the main regimens of interest were superior to PR-based treatments, specifically SOF + LDV and PAR/RIT + OMB + DAS ± RBV. There was limited evidence for patients with cirrhosis. Once again, there were no significant differences between SOF + LDV and PAR/RIT + OMB + DAS ± RBV, and in some cases these regimens were superior to DCV-based regimens (in particular, PAR/RIT + OMB + DAS ± RBV was generally better for genotype 1b and for patients without cirrhosis).
- For treatment-experienced patients with prior relapse, prior partial response, or null response, PAR/RIT + OMB + DAS ± RBV demonstrated improved SVR rates compared with PR-based treatments. Where SOF + LDV and DCV-based regimens could be included in these analyses, these regimens also significantly improved SVR rates compared with PR; there were generally no significant differences between these regimens and PAR/RIT + OMB + DAS ± RBV.
- Data were limited for the evaluation of HIV-coinfected patients with genotype 1 infection. SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 + RBV12, and SOF24 + RBV24 significantly improved SVR compared with PR48 in treatment-naive HIV-coinfected patients with genotype 1 infection. SVR rates were comparable in this population to those observed in patients with CHC genotype 1 monoinfection. One non-comparative study of PAR/RIT12 + OMB12 + DAS12 + RBV12 (and the same regimen for 24 weeks) demonstrated high SVR rates among treatment-experienced HIV-coinfected patients with genotype 1 infection.
- Data to evaluate patients with genotype 1 infection and liver transplant were limited to two studies, one evaluating PAR/RIT + OMB + DAS ± RBV in patients with genotype 1 infection and no or mild fibrosis, and the other evaluating SOF24 + RBV24 in mostly treatment-experienced patients with genotypes 1 and 3 infection. SVR rates were 97% in the study of PAR/RIT + OMB + DAS ± RBV and 70% in the SOF + RBV study. There was no evidence available for patients with genotype 1 infection and decompensated liver disease.
- Data for the efficacy of treatments for CHC infection in patients previously treated unsuccessfully with DAA + PR regimens were limited to four studies that reported SVR rates specifically in this population. The largest of these was ION-2, in which SVR rates among patients with genotype 1 infection and prior treatment failure on DAA + PR were 94% with SOF12 + LDV12 (n = 66); 97% with SOF12 + LDV12 + RBV12 (n = 64); 98% with SOF24 + LDV24 (n = 50); and 100% with SOF24 + LDV24 + RBV24 (n = 51). Evidence was also available from one trial (n = 80) for the use of SOF12 + PR12 for patients with CHC genotype 1 infection without cirrhosis and prior experience with DAA-PR, in which the reported SVR rate was 79%. Only one study reported SVR rates for patients previously treated with an all-oral DAA regimen. In this study, all 14 patients with CHC genotype 1 infection previously treated with SOF + RBV achieved SVR with SOF12 + LDV12.

Exhibit 1: Genotype 1 Patients: Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
Treatment-Naive Patients			
All	PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 SIM12 + PR24-48 RGT (for DCV12 + SOF12) PR48
Genotype 1a	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT	(with RBV12) PR48 SOF12 + PR12	
Genotype 1b	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48	PR48 SIM12 + PR24-48 RGT
Cirrhotic	PR48 SOF24 + RBV24 SIM12 + PR24-48 RGT		PR48
Non-cirrhotic	PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 (with RBV12) PR48 SOF24 + RBV24 SIM12 + PR24-48 RGT	PR48 SIM12 + PR24-48 RGT (for DCV12 + SOF12) PR48
Treatment-Experienced Patients			
All	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SIM12 + PR48 DCV24 + ASU24 (24 weeks) PR48	PR48 (with RBV12) PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SIM12 + PR48 DCV24 + ASU24	PR48 SIM12 + PR48 (with PR24) PR48 SIM12 + PR48 SIM12 + PR24-48 RGT
Genotype 1a	PR48 SIM12 + PR24-48 RGT SIM12 + PR48 (24 weeks) PR48	(with RBV12) PR48 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12	(with PR24) PR48
Genotype 1b	PR48 (24 weeks) PR48	PR48 SIM12 + PR24-48 RGT	PR48 (with PR24) PR48 SOF12 + LDV12

Exhibit 1: Genotype 1 Patients: Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
			SOF24 + LDV24 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24
Cirrhotic	PR48 (24 weeks) PR48		PR48 (with PR24) PR48 SIM12 + PR48
Non-Cirrhotic	PR48 SIM12 + PR24-48 RGT	PR48 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24 SIM12 + SOF12 (with RBV12) PR48 SOF12 + LDV12 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24 DCV24 + ASU24 + PR24 SIM12 + SOF12	PR48 (with PR24) PR48 SIM12 + PR24-48 RGT
Treatment-Experienced Patients With Prior Relapse			
All	PR48	PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SIM12 + PR24-48 RGT	
Genotype 1a		(with RBV12) PR48	
Genotype 1b			
Cirrhotic			
Non-cirrhotic		PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SIM12 + PR24-48 RGT	
Treatment-Experienced Patients With Prior Partial Response			
All		PR48	PR48

Exhibit 1: Genotype 1 Patients: Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
		(with RBV12) PR48 SIM12 + PR48	(with PR24) PR48
Genotype 1a		(with RBV12) PR48 SIM12 + PR48	
Genotype 1b			
Cirrhotic			
Non-cirrhotic		PR48 (with RBV12) PR48	
Treatment-Experienced Patients With Prior Null Response			
All		PR48 (with RBV12) PR48 SOF12 + PR12 SIM12 + PR48	PR48 SOF12 + PR12 (with PR24) PR48 SOF12 + PR12
Genotype 1a		(with RBV12) PR48 SIM12 + PR48 (24 weeks with RBV24) PR48 SIM12 + PR48	
Genotype 1b			
Cirrhotic			
Non-cirrhotic		PR48 SIM12 + PR48 (with RBV12) PR48 SIM12 + PR48	(with PR24) SIM12 + PR48

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

NMA was also conducted in patients with genotype 2, 3, or 4 CHC infection. The available data were limited compared with genotype 1, and the networks were simpler because fewer treatment strategies were evaluated. Therefore, a limited number of treatment comparisons resulted from the analysis.

In Exhibit 2, the SVR results for specific treatments that were compared in this review are summarized. In particular:

- For patients with genotype 2 infection, SOF12 + RBV12 significantly improved SVR rates over PR24 in treatment-naive patients, but SOF12 + PR12 did not. In treatment-experienced patients, neither SOF16 + RBV16 nor SOF12 + PR12 were significantly different from the reference treatment, SOF12 + RBV12.
- For patients with genotype 3 infection and regardless of treatment experience, SOF24 + RBV24, DCV12 + SOF12, and SOF12 + PR12 significantly improved SVR compared with PR48, and there were no significant differences between these regimens.
- For patients with genotype 4 infection, SOF12 + PR12 and SOF24 + RBV24 significantly improved SVR compared with PR48 in treatment-naive patients overall, and SOF12 + PR12 was statistically superior to SOF12 + RBV12. DCV24 + ASU24 + PR24 significantly improved SVR compared with the reference treatment SOF12 + RBV12 in treatment-experienced patients overall. There was no evidence to allow for inclusion of SOF12 + PR12 in the analysis of treatment-experienced patients.
- Data were limited for the evaluation of HIV-coinfected patients with CHC infection genotypes 2 through 4, although the following regimens demonstrated high SVR rates in individual studies: SOF12 + RBV12 in genotype 2; SOF24 + RBV24 in genotype 3; and SOF24 + RBV24 and SOF12+ PR12 in genotype 4. There were no data for treatment-experienced patients with HIV coinfection.
- Data for the evaluation of patients with genotypes 2, 3, or 4 infection and liver transplant were limited to one study evaluating SOF24 + RBV24 in mostly treatment-experienced patients with genotypes 1 (83%), 3 (15%), and 4 (3%) infection. None of the patients with genotype 4 infection achieved SVR, and results were not reported separately for patients with genotype 3 infection. There was no evidence available for patients with genotype 2, 3, or 4 infection and decompensated liver disease.
- There was no evidence available regarding the efficacy of DAA-based regimens of interest in patients with genotype 2, 3, or 4 infection and unsuccessful prior treatment with a DAA-based regimen.

Exhibit 2: Genotype 2 to 4 Patients: Summary of the Results for SVR With Reference to Reported Treatment Regimens										
Patient Population	**Genotype 2**			**Genotype 3**			**Genotype 4**			
	SOF12 + RBV12	**SOF12 + PR12**	**SOF16 + RBV16**	**SOF24 + RBV24**	**SOF12 + DCV12**	**SOF12 + PR12**	**SOF12 + RBV12**	**SOF24 + RBV24**	**SOF12 + PR12**	**DCV24 + ASU24 + PR24**
Treatment-Naive Patients (PR24 Reference for Genotype 2) (PR48 Reference for Genotypes 3 and 4)										
All	PR24	NS		PR48	PR48		NS	PR48	PR48 SOF12 + RBV12	
Cirrhotic	PR24			PR48			NS	PR48		
Non-cirrhotic	PR24	NS		PR48	PR48		NS	NS		
Treatment-Experienced Patients (SOF12 + RBV12 Reference for Genotypes 2 and 4) (PR48 Reference for Genotype 3)										
All	---	NS SOF16 + RBV16	NS	PR48	PR48	PR48	---	NS		SOF12 + RBV12
Cirrhotic	---	NS	NS	PR48		PR48	---	NS		SOF12 + RBV12
Non-cirrhotic	---	NS		PR48	PR48	NS	---	NS		SOF12 + RBV12

ASU = asunaprevir; DCV = daclatasvir; NS = no significant difference was found; PR = pegylated interferon plus ribavirin; RBV = ribavirin; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages. Dashes (---) indicate that the treatment was the reference standard. Blank cell indicates that the treatment was not considered for this patient population. Please refer to Treatment Regimen Nomenclature table for description of dosages.

The data for CHC genotype 5 and 6 infections were insufficient for meta-analysis. All six patients with genotype 6 and the one patient with genotype 5 infection who received SOF12 + PR12 in the NEUTRINO study achieved SVR12. All five patients with genotype 6 infection who received SOF24 + PR24 in the ATOMIC study achieved SVR12. Eight out of the 10 (80%) patients with genotype 6 infection who received elbasvir 12 weeks (ELB12) (50 mg) + grazoprevir 12 weeks (GRZ12) in the C-EDGE study achieved SVR12.

Safety

Three key adverse events were identified — rash, anemia and depression — based on their impact on patients' quality of life and health care resources. A summary of the NMA results with specific reference to SOF + LDV, PAR/RIT + OMB + DAS, and the DCV-based regimens is provided in Exhibit 3. This table provides a summary, by treatment history, of when these regimens were significantly associated with fewer adverse events (i.e., rash, anemia and depression) compared with the other treatments listed in the table. In particular, for treatment-naive patients:

- All three regimens were associated with significantly lower risks for rash and anemia than PR-based treatments, but only SOF + LDV and DCV-based regimens were significantly associated with less depression compared to PR-based treatments.
- For rash, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV, PAR/RIT + OMB + DAS without RBV and DCV-based regimens.
- For anemia, PAR/RIT + OMB + DAS with or without RBV was less favourable than SOF + LDV.
- For depression, PAR/RIT + OMB + DAS with RBV and DCV were less favourable than SOF + LDV.

For treatment-experienced patients:

- All three regimens were associated with significantly less rash and anemia than PR-based treatments, but evidence was limited for depression.
- For rash, DCV with PR was less favourable than SOF + LDV, PAR/RIT + OMB + DAS and DCV without PR.
- For anemia, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV and PAR/RIT + OMB + DAS without RBV.

Exhibit 3: All Patients — Summary of the Results for Rash, Anemia, and Depression With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir

Safety Event	Harvoni (SOF12 + LDV12) Significantly Associated With Fewer Events Compared With	HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Associated With Fewer Events Compared With	Daclatasvir (DCV24 + ASU24) Significantly Associated With Fewer Events Compared With
Treatment-Naive Patients — All Genotypes			
Rash	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12
Anemia	PR48 SOF12 + PR12	PR48 SOF12 + PR12	(with DCV12 + SOF12) PR48

Exhibit 3: All Patients — Summary of the Results for Rash, Anemia, and Depression With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Safety Event	**Harvoni (SOF12 + LDV12) Significantly Associated With Fewer Events Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Associated With Fewer Events Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Associated With Fewer Events Compared With**
	SOF24 + RBV24 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 ± RBV12	SOF24 + RBV24 SIM12 + PR24-48 RGT (with RBV12) PR48 SOF12 + PR12	SOF12 + PR12 SOF24 + RBV24 SIM12 + PR24-48 RGT
Depression	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 DCV12 + SOF12 PAR/RIT12 + OMB12 + DAS12 + RBV12		PR48
Treatment-Experienced Patients — All Genotypes			
Rash	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 + PR24	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12 (with RBV12) PR48 DCV24 + ASU24 + PR24	PR48 DCV24 + ASU24 + PR24 SOF12 + PR12
Anemia	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12 (with RBV12) PR48 SOF12 + PR12	(with PR24) PR48 SOF12 + PR12
Depression		(with RBV12) PR48	PR48

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

In addition to rash, anemia, and depression, other safety events were considered. The data available and/or the frequency of these safety events were not sufficient for NMA. For treatment-naive patients:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, HCC, and liver transplants were infrequently reported for all treatment regimens
- Adverse events, fatigue, and pruritus were frequently reported across treatment regimens
- PR48 was often associated with harms, and
- SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

For treatment-experienced patients:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, HCC, and liver transplants were infrequently reported for all treatment regimens
- Adverse events, fatigue, and pruritus were frequently reported across all treatments
- PR48 was often associated with harms, and
- SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

Strengths and Limitations

The systematic review was limited by the quality of the included studies. For the 67 studies that were included in the systematic review, overall quality was adequate; however, all but two studies had one or more methodological domains with an unclear or high risk of bias. Moreover, data for some DAAs in specific populations were limited to open-label, uncontrolled (or historically controlled) studies, thus limiting our ability to assess comparative efficacy and safety using standard Bayesian indirect comparison methodologies. No individual patient data were available for analyses, so it was not possible to use comparative effectiveness methods such as propensity scores for matching studies and identifying a comparator arm or conducting an adjusted analysis. Instead, single-arm studies were incorporated into the NMA by creating a "virtual" study, in which a comparator arm matched for baseline patient characteristics was identified for the single arm.

NMAs were not conducted for all outcomes of interest in the systematic review. The outcomes analyzed were selected based on their clinical importance to the research questions and the economic model. The adverse events analyzed were limited to those specific events deemed to have the greatest impact on patients' quality of life or ability to complete treatment regimens, or those that required additional interventions or incurred substantial costs to manage.

Limited data were available according to severity of fibrosis (as measured by METAVIR score) for the interferon-free DAA treatment regimens. Instead, studies of the newer DAA-based regimens define patients according to whether they have cirrhosis or not. In order to maintain the most robust network possible for SVR12, analyses were stratified by non-cirrhosis (i.e., METAVIR score 1 to 3) and cirrhosis (i.e., METAVIR score of 4). This classification method resulted in six studies reporting fibrosis scores of 3 and 4 combined and being excluded from the NMA for SVR12. In addition, because the data were sparse, our subgroup analyses for patients with cirrhosis may lack power, and the uncertainty in the findings is reflected in the wide credible intervals (CrIs).

A large majority of included studies excluded subgroups of interest such as patients with tuberculosis, HBV coinfection, decompensated cirrhosis, or other significant illnesses; as such,

we were unable to perform NMA for these special patient populations. The primary outcome for most studies was SVR12, but some of the earlier studies reported SVR24, and some studies reported both. No studies reported long-term outcomes such as hepatic complications.

The number of trials that contributed to some of the NMAs was limited, which may have yielded less precise estimates than if we had been able to create more robust evidence networks. Data were insufficient to conduct an NMA for some subpopulations of interest and in genotypes 5 and 6. Specifically, small numbers of patients with cirrhosis, patients previously treated (with PR, DAA + PR or DAA alone), and patients coinfected with HIV were included. Limited data was especially an issue in the analysis of genotype 1 patients with cirrhosis and all analyses for genotypes 2 to 4; thus, the results showed wide CrIs. Results from these analyses should therefore be interpreted with caution.

We were unable to perform regression analyses to determine whether the proportion of patients with specific baseline characteristics or epidemiological factors in the trials had an impact on our findings.

We were unable to analyze adverse events according to their severity, as data on severity were not consistently reported. In addition, different definitions of adverse events may have been used across studies, but due to the lack of detailed descriptions and study protocols, we were unable to assess potential differences.

A strength of this review was its comprehensiveness in identifying and assessing clinically relevant regimens for the treatment of CHC infection that are currently approved in Canada, recommended by major guidelines, or likely to be available in the near future. However, evidence that could be included in NMA was not available for some regimens of interest, namely: DCV24 + SOF24 for genotype 1 infection; DCV + ASU + PR for treatment-naive patients with genotype 1 infection; DCV12 + SOF12 for treatment-experienced patients with genotype 1 infection; DCV + SOF for genotype 2 infection; SOF12 + LDV12 + RBV12 and DCV24 + SOF24 ± RBV24 for genotype 3 infection regardless of treatment experience; SOF12 + LDV12 and DCV12 + ASU12 + PR12 for patients with genotype 4 infection; and SOF12 + PR12 for treatment-experienced patients with genotype 4 infection. Trial data for some of these regimens may be available in conference abstracts, which were not included in the systematic review. Furthermore, given the rapid and ongoing developments in the field, and because changes to review scope could only be made up to a certain point (February 2015) without compromising methodological quality and timeliness, it is possible that some regimens currently considered relevant may not have been captured in the review.

Conclusions and Implications for Decision- or Policy-Making

In terms of efficacy (as measured by SVR):

- For treatment-naive and -experienced patients with genotype 1 infection, SOF + LDV, PAR/RIT + OMB + DAS and DCV were superior to PR-based treatments. SOF + LDV and PAR/RIT + OMB + DAS were better than DCV-based regimens in some patient subgroups. There was limited evidence for patients with cirrhosis.
- The data available for genotype 2 to 4 were limited. For patients with genotype 2 infection, SOF12 + RBV12 significantly improved SVR rates over PR24 in treatment-naive patients, but SOF12 + PR12 did not. In treatment-experienced patients, neither SOF16 + RBV16 nor SOF12 + PR12 were significantly different from SOF12+ RBV12.

- For patients with genotype 3 infection and regardless of treatment experience, SOF24 + RBV24, DCV12 + SOF12, and SOF12 + PR12 significantly improved SVR compared with PR48, and there were no significant differences between these regimens.
- For genotype 4 patients, DCV24 + ASU24 + PR24 and SOF12 + PR12 were superior to SOF12 + RBV12 in treatment-experienced and -naive patients, respectively.
- The data for genotype 5 and 6 infection were insufficient for analysis.
- Data were limited for the evaluation of patients with HIV coinfection; however, SOF + LDV, PAR/RIT + OMB + DAS + RBV, and SOF24 + RBV24 significantly improved SVR compared with PR48 in treatment-naive patients with genotype 1 infection, and there was some indication that PAR/RIT + OMB + DAS + RBV is efficacious for treatment-experienced patients with genotype 1 infection and HIV coinfection. NMA could not be performed for patients infected with other genotypes and coinfected with HIV, although the following regimens demonstrated high rates of SVR in treatment-naive patients in individual trials: SOF12 + RBV12 in genotype 2; SOF24 + RBV24 in genotype 3; SOF24 + RBV24 and SOF12 + PR12 in genotype 4. There were no data for treatment-experienced patients with non-genotype 1 infection and HIV coinfection.
- There were limited data to inform optimal re-treatment of patients after failure to achieve SVR on a previous DAA-based regimen. SOF12 + PR12, SOF + LDV ± RBV for 12 or 24 weeks, and SOF24 + RBV24 demonstrated high SVR rates in studies of patients with genotype 1 infection who had failed prior DAA-PR therapy. Preliminary evidence suggests that SOF12 + LDV12 may be associated with high SVR rates in patients with CHC genotype 1 infection previously treated unsuccessfully with SOF + RBV.
- No evidence was available to allow analysis of efficacy for the following regimens: DCV24 + SOF24 for genotype 1 infection; DCV + ASU + PR for treatment-naive patients with genotype 1 infection; DCV12 + SOF12 for treatment-experienced patients with genotype 1 infection; DCV + SOF for genotype 2 infection; SOF12 + LDV12 + RBV12 and DCV24 + SOF24 ± RBV24 for genotype 3 infection regardless of treatment experience; SOF12 + LDV12 and DCV12 + ASU12 + PR12 for patients with genotype 4 infection; and SOF12 + PR12 for treatment-experienced patients with genotype 4 infection.

In terms of safety:

- Adverse events, fatigue, and pruritus were frequently reported across all treatments.
- Withdrawals due to adverse events, mortality, and liver-related complications of CHC infection (e.g., HCC) were infrequently reported across all treatments.
- For treatment-naive and -experienced patients, SOF + LDV, PAR/RIT + OMB + DAS and DCV-based regimens were associated with lower risks for rash and anemia than PR-based treatments, but only SOF + LDV and DCV-based regimens were associated with less depression compared with PR-based treatments. In particular, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV.
- For treatment-experienced patients, SOF + LDV, PAR/RIT + OMB + DAS and DCV-based regimens were associated with less rash and anemia than PR-based treatments, but evidence was sparse for depression. For rash, DCV with PR was less favourable than SOF + LDV, PAR/RIT + OMB + DAS and DCV without PR. For anemia, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV and PAR/RIT + OMB + DAS without RBV.

CONTEXT AND POLICY ISSUES

Background

According to estimates from 2007, approximately 242,000 Canadians are chronically infected with hepatitis C virus (HCV), and the number may grow by 7,900 new infections each year.[3] It is difficult to accurately estimate the prevalence of HCV cases, as limited population-level surveillance has been carried out in Canada. Prevalence and incidence may be underestimated, because 30% to 70% of patients are unaware that they are infected.[4] Persons infected with chronic hepatitis C progress through various stages of disease and in due course may develop critical illnesses resulting from associated sequelae.[4,5] Studies have reported that 15% to 25% of patients with CHC infection develop hepatocellular carcinoma (HCC) or progressive liver disease within 20 years of infection, resulting in liver transplantation for some and decreased life expectancy and quality of life for many. However, the lifetime risk of developing complications of CHC infection may be higher depending on the duration of infection and the profile of competing risk factors over time.[6,7]

HCV can be divided into several unique genotypes, each with one or more subtypes. Genotype 1 is the most common in Canada (55% to 65%) and historically the most difficult to cure.[8,9] Genotypes 2 and 3 are the next most common, estimated to comprise 14% and 20% of HCV infections in Canada, respectively. Genotypes 4, 5, and 6 are less common in Canada and account for less than 5% of HCV cases.[9,10] The goal of therapy for patients with CHC infection is to achieve sustained virologic response (SVR); i.e., undetectable HCV at 12 or 24 weeks after completion of anti-HCV treatment. The vast majority of patients who achieve SVR remain free of detectable HCV over the long term (unless reinfected); hence, SVR is considered to represent virologic cure. Furthermore, achievement of SVR is associated with reduced risks for the hepatic sequelae of CHC infection such as cirrhosis and HCC. Treatment of CHC infection is guided by genotype, the presence and degree of liver fibrosis or cirrhosis, prior treatment experience, and patient factors such as the presence of comorbidities. Until 2011, the standard of care for CHC infection was pegylated interferon alfa combined with ribavirin (PR).[11] Following regulatory approvals beginning in 2011, combinations of the direct-acting antiviral (DAA) agents boceprevir (BOC), telaprevir, simeprevir (SIM), and sofosbuvir (SOF) with PR demonstrated substantially greater efficacy in terms of SVR than PR alone in clinical studies, resulting in a changed paradigm for management of patients with chronic CHC genotype 1 infection.[12,13]

In 2014, CADTH completed a therapeutic review evaluating the clinical and cost-effectiveness of treatments for CHC genotype 1 infection that included the DAA-based regimens available in Canada at the time.[14] Based on this review, the CADTH Canadian Drug Expert Committee (CDEC) recommended that:[15]

- DAA plus PR treatment should be offered only to persons with CHC infection who have fibrosis stages F2, F3, or F4.
- Simeprevir daily for 12 weeks, in combination with PR for 24 to 48 weeks, should be used as the protease inhibitor of choice for treatment-naive patients or for treatment-experienced patients with prior relapse.
- Persons in whom a DAA plus PR regimen has failed should not be re-treated with another DAA plus PR regimen.

At the time, CDEC could make no definitive recommendations regarding the place in therapy for SOF relative to other available DAAs.

Despite the improved efficacy of these new treatment regimens compared with PR alone, they may be associated with significant side effects, long treatment schedules, and limited success in specific HCV genotypes.[16] Rapid developments have occurred in HCV treatment since the introduction of the first DAAs, with considerable focus placed on the development of interferon-free regimens due to the significant toxicities associated with interferon therapy. A number of interferon-free treatment regimens have recently entered the market or are in late-stage development. Apart from better tolerability, potential benefits of some or all of these regimens are shorter treatment durations, higher efficacy in terms of SVR rates, efficacy against HCV genotypes other than genotype 1, and all-oral dosing. The US Food and Drug Administration and Health Canada have approved Harvoni (an interferon-free combination of ledipasvir [LDV] and SOF) and HOLKIRA PAK (a combination of a dasabuvir [DAS] tablet and an ombitasvir [OMB], paritaprevir [PAR], and ritonavir [RIT] tablet, which may also be combined with ribavirin [RBV]) (Table 3).[17,18] Daclatasvir [DCV] in combination with SOF has also recently been approved for use in Canada for patients with genotypes 1, 2, and 3 infection.[19] A number of other treatment regimens are in phase 3 clinical trial programs that span multiple genotypes and address specific subgroups of HCV patients who have previously been difficult to treat, including those with HIV coinfection, decompensated liver disease, and liver transplant.[20]

Treatment of Chronic Hepatitis C Infection

The Canadian Association for the Study of the Liver updated its Consensus Guidelines in early 2015, citing the need to adjust its recommendations based on the rapidly changing treatment landscape and the dramatically improved rates of virologic clearance found in studies of the new DAA agents.[1] The guidelines suggest that the interferon-free DAA regimens (SOF + LDV and PAR/RIT + OMB + DAS) should be considered first-line treatment for patients with CHC genotype 1 infection. PR, boceprevir (VICTRELIS), and telaprevir (Incivek) were listed as regimens not recommended for this genotype. As of January 1, 2015, Vertex Pharmaceuticals has discontinued sales of Incivek in Canada and both Incivek and VICTRELIS are no longer available in the United States, having been rendered essentially obsolete by the market entry of the newer DAA regimens.

Regulatory approvals of newer regimens (Table 1) have given way to discussions of affordability and accessibility, which pose a challenge for both publicly and privately funded drug programs in Canada, given the prevalence of CHC infection and the higher cost of new treatments compared with PR-based regimens.

In anticipation of the need and demand for supporting evidence and information regarding the comparative effectiveness of new regimens for CHC infection, the Methods and Applications Group for Indirect Comparisons (MAGIC), in collaboration with CADTH, updated CADTH's previous therapeutic review to include recently approved and emerging regimens for the treatment of CHC infection (genotypes 1 through 6).

Table 1: Health Canada–Approved Therapies for the Treatment of Chronic Hepatitis C Infection		
Product	**Treatment Indication**	**Mechanism of Action**
Pegylated Interferon-Containing Products		
Peginterferon alfa-2a (PEGASYS), Peginterferon alfa-2a plus ribavirin (PEGASYS RBV)	For the treatment of CHC in adult patients without cirrhosis and adult patients with compensated cirrhosis, including HCV and HIV-coinfected patients with stable HIV disease with or without antiretroviral therapy	Interferons bind to specific receptors on the cell surface, initiating a complex intracellular signalling pathway and rapid activation of gene transcription. Interferon-stimulated genes modulate many biological effects, including the inhibition of viral replication in infected cells, inhibition of cell proliferation, and immunomodulation The mechanism of action of RBV is not known
Peginterferon alfa-2b plus ribavirin (PEGETRON)	Treatment of adult patients (aged 18 years or older) with CHC who have compensated liver disease and are positive for HCV RNA, including patients who have not received previous treatment or who failed prior treatment with interferon alfa (pegylated or non-pegylated) and ribavirin combination therapy	
Protease Inhibitors		
Boceprevir (VICTRELIS) (VICTRELIS TRIPLE)	Treatment of CHC genotype 1 infection, in combination with peginterferon alfa and RBV, in adult patients (aged 18 years or older) with compensated liver disease, including cirrhosis, who are previously untreated or who have failed previous therapy	DAA against the HCV that is a specific inhibitor of the HCV NS3/4A protease covalently, yet reversibly, binds to the NS3/4A protease active-site serine (Ser139) through an alpha-ketoamide functional group to inhibit viral replication in HCV-infected host cells
Telaprevir (Incivek). Note: telaprevir has been discontinued in Canada as of January 1, 2015	Treatment of CHC genotype 1 infection, in combination with peginterferon alfa and RBV, in adult patients with compensated liver disease, including cirrhosis, who are treatment-naive or who have previously been treated with interferon-based treatment, including prior null responders, partial responders, and relapsers	DAA against the HCV that is a specific inhibitor of the HCV NS3/4A protease, which is essential for viral replication
Simeprevir (GALEXOS)	Treatment of CHC genotype 1 infection, in combination with peginterferon alfa and RBV in adults with compensated liver disease, including cirrhosis, who are treatment-naive or who have failed previous interferon therapy (pegylated or non-pegylated) with RBV	DAA against the HCV that is a specific inhibitor of the HCV NS3/4A protease through a non-covalent, induced-fit binding into the active site of the NS3 protease
Nucleotide Polymerase Inhibitor		
Sofosbuvir (SOVALDI)	Treatment of CHC infection in adult patients with compensated liver disease, including cirrhosis, as follows: • for the treatment of genotype 1 and genotype 4 CHC infection in combination with pegylated interferon and RBV • for the treatment of genotype 2 and	DAA against the HCV that is mediated by a membrane-associated multiprotein replication complex. The HCV polymerase (NS5B protein) is an RNA-dependent RNA polymerase and is the essential initiating and catalytic

Table 1: Health Canada–Approved Therapies for the Treatment of Chronic Hepatitis C Infection		
Product	**Treatment Indication**	**Mechanism of Action**
	genotype 3 CHC infection in combination with RBV	subunit of this replication complex and is critical for the viral replication cycle
Ledipasvir/sofosbuvir (Harvoni fixed-dose single tablet)	Treatment of CHC infection genotype 1 infection in adults, including: • treatment-naive patients with and without cirrhosis • treatment-experienced patients with or without cirrhosis The product monograph states that the safety and efficacy of Harvoni have not been studied in patients infected with HCV genotype 2, 4, 5 or 6 and has not been fully established in patients infected with genotype 3	Both sofosbuvir and ledipasvir exhibit high potency and specificity as individual agents against HCV that target the HCV NS5B and NS5A proteins, respectively. Ledipasvir is a DAA agent that inhibits HCV RNA replication and virion production by targeting the HCV NS5A protein. The NS5A protein is thought to play multiple roles in mediating viral replication, host-cell interactions, and viral pathogenesis
Ombitasvir/paritaprevir/ ritonavir (fixed-dose single tablet) and dasabuvir (HOLKIRA PAK)	Indicated for the treatment of adults with genotype 1 CHC, including those with compensated cirrhosis: • with ribavirin in non-cirrhotic patients with genotype 1a infection • without ribavirin in non-cirrhotic patients with genotype 1b infection • with ribavirin in patients with compensated cirrhosis. Safety and efficacy have not been established in other genotypes	HOLKIRA PAK combines 3 direct-acting HCV antiviral agents with distinct mechanisms of action, and non-overlapping resistance profiles, to target HCV at multiple steps in the viral life cycle. Paritaprevir is an inhibitor of HCV NS3/4A protease; ombitasvir is an inhibitor of HCV NS5A, which is essential for viral replication; and dasabuvir is a non-nucleoside inhibitor of the HCV RNA-dependent RNA polymerase encoded by the NS5B gene, which is essential for replication of the viral genome. Inhibition of viral replication leads to a rapid decline of HCV viral load and clearing of HCV levels in the body. Ritonavir is not active against HCV; rather, it is a pharmacokinetic enhancer that increases peak and trough plasma drug concentrations of paritaprevir and overall drug exposure (i.e., area under the curve).

CHC = chronic hepatitis C; DAA = direct-acting antiviral; HCV = hepatitis C virus; NS = non-structural protein; RBV = ribavirin; RNA = ribonucleic acid.

Policy Questions

There were three policy questions for this project, reflecting the information needs of federal, provincial, and territorial public drug plans across Canada related to the treatments for CHC infection:

1. How should interferon-free DAA regimens be listed for reimbursement for CHC infection (genotypes 1 to 6)?
2. Should reimbursement of regimens for CHC infection be guided by fibrosis staging and limited to fibrosis stages ≥ F2?
3. Should re-treatment with a DAA regimen be reimbursed for patients with CHC infection who fail to achieve SVR on another DAA regimen?

Research Questions

Five research questions were developed to address the aforementioned policy issues:

1. What is the comparative efficacy and safety of treatment regimens for patients with CHC infection (genotypes 1 to 6) who are treatment-naive?
2. What is the comparative cost-effectiveness of treatment regimens for patients with CHC infection (genotypes 1 to 4) who are treatment-naive?
3. What is the comparative efficacy and safety of treatment regimens for patients with CHC infection (genotypes 1 to 6) who have relapsed or had a partial or null response to prior PR or DAA + PR or DAA-only therapy?
4. What is the comparative cost-effectiveness of treatment regimens for patients with CHC infection (Genotypes 1 to 4) who have relapsed or had a partial or null response to prior PR or DAA + PR or DAA-only therapy?[3]
5. For questions 1 to 4, how do the comparative efficacy, safety, and cost-effectiveness of treatment regimens vary across population subgroups based on fibrosis level (METAVIR score ≤ F1, F2, F3, or F4), cirrhosis stage (e.g., compensated versus decompensated), genotype subtype, post-liver transplant, baseline viral load, HIV and HCV coinfection, hepatitis B (HBV) and HCV coinfection, and tuberculosis (TB) and HCV coinfection?

This review report addresses the questions related to comparative efficacy and safety. Questions related to cost-effectiveness are addressed in the accompanying Cost-Effectiveness Analysis Report.

METHODS

This report is an update to CADTH's previous therapeutic review[14] of DAA agents for CHC genotype 1 infection, published in October 2014, which addressed policy questions put forward to CADTH by publicly funded drug plans. This review specifically expands the scope of the previous review to include HCV genotypes 2 to 6, as well as recently approved and emerging regimens.

[3] The decision to model cost-effectiveness for only HCV genotypes 1 to 4 was based on the anticipated availability of sufficient clinical data to inform the analysis. Results for cost-effectiveness research questions are reported elsewhere.

A protocol and list of included studies were posted in April 2015, with stakeholder feedback sought on the latter. Both were vetted by clinical experts and methodologists.

The strategy for building and analyzing the evidence base for the treatment of CHC infection consisted of two fundamental steps. First, a broad systematic review of the available evidence in the published literature for the outcomes specified in the protocol was undertaken to update the previous therapeutic review literature search for genotype 1, and to identify all studies for genotypes 2 to 6. The systematic review followed a protocol written a priori and was conducted in line with the *Cochrane Handbook for Systematic Reviews of Interventions*.[21] Second, a network meta-analysis (NMA) was conducted to compare the available treatment regimens reporting outcomes of interest.

Population, Intervention, Comparator, Outcomes, Study Design Statement

The main regimens of interest for this review were those:

- Currently approved by Health Canada for the populations of interest in this review
- Considered of clinical relevance based on inclusion in Canadian[1] or US clinical practice guidelines,[2] or
- Considered to have a high likelihood of regulatory approval in Canada in the near future (i.e., within approximately 12 months), based upon information available to CADTH as of February 2015.

Some regimens other than those meeting the above criteria were also included in the review and NMA, either because they were felt to be of potential clinical importance during scoping, or because they were potentially beneficial for constructing more robust networks.

The population, intervention, comparator, outcome, and study design (PICOS) statement is outlined in Table 2. Further details on regimens eligible for inclusion in this review, such as doses and treatment duration, are presented in APPENDIX 2.

Table 2: PICOS and Study Eligibility Criteria	
Population	**Adult patients with confirmed:**
	CHC infection (genotypes 1 through 6)
Interventions and Comparators	**Currently available:**
	• pegylated interferon alfa combined with ribavirin (PR[a]) • boceprevir in combination with PR[a] • telaprevir in combination with PR[a] • simeprevir in combination with PR • sofosbuvir in combination with PR • sofosbuvir/ledipasvir with or without ribavirin • paritaprevir/ritonavir/ombitasvir in combination with dasabuvir, with or without ribavirin • sofosbuvir in combination with ribavirin • simeprevir in combination with sofosbuvir, with or without ribavirin • daclatasvir in combination with asunaprevir, with or without PR • daclatasvir in combination with sofosbuvir
	Emerging Treatments
	• daclatasvir in combination with asunaprevir and beclabuvir • grazoprevir in combination with elbasvir • sofosbuvir in combination with GS-5816 • paritaprevir/ritonavir in combination with ABT-530
Outcomes	Sustained virologic response, relapse, quality of life, hepatic cirrhosis, hepatocellular carcinoma, liver transplants, mortality (all-cause, liver-related), serious adverse events, withdrawals due to adverse events, rash, fatigue, anemia, thrombocytopenia, pruritus, neutropenia, depression, suicidal ideation, flu-like symptoms
Study Design	Published, randomized or non-randomized, controlled or uncontrolled, prospective interventional studies
Exclusion Criteria	Studies were excluded if they are in languages other than English; are presented in abstract format; do not meet the aforementioned selection criteria; provide results of a qualitative study; or are follow-up, extension, or observational studies. Duplicate publications, narrative reviews, conference abstracts, and editorials were also excluded.

CHC = chronic hepatitis C; PR = pegylated interferon alfa combined with ribavirin.
[a] Included in the analysis primarily as a comparator for other regimens.

Note that some regimens containing PR require a lead-in period or are eligible for changes in the duration of PR therapy based on viral response (i.e., response-guided therapy [RGT]); the rules for inclusion of such regimens were the same as in the original CADTH therapeutic review.[14] For patients with HIV coinfection, or those who are treated following liver transplantation, dosing regimens other than those described in APPENDIX 2 were eligible for inclusion, given that potential drug interactions between antiretroviral and immunosuppressant agents may require dosage adjustments of HCV medications.
Older regimens for CHC infection (PR alone, boceprevir, telaprevir) may be of limited clinical significance, given the availability of newer regimens; telaprevir has in fact been discontinued from the Canadian market by the manufacturer. However, Health Canada–approved regimens containing these agents have been retained in the review and NMAs for comparative purposes. Only randomized controlled trials (RCTs) of such regimens were eligible for inclusion. For all other regimens listed in Table 2, both RCTs and non-randomized interventional studies (including single-arm trials) were eligible for inclusion in the review. Observational studies such as cohort studies or reports describing experience from

compassionate use programs were excluded. Uncontrolled trials of telaprevir or boceprevir plus PR regimens were also excluded from the review.

When a study met the inclusion criteria but included an intervention arm(s) with regimens that were not eligible for inclusion in the review, that arm(s) was excluded from the review and only arm(s) that included regimens eligible for inclusion were included in the review. Additional details regarding the eligible dosing inclusion criteria are listed in APPENDIX 2. A detailed list of excluded study arms is presented in APPENDIX 5.

It is important to note that this review updates the 2014 CADTH Therapeutic Review on DAAs for CHC genotype 1 infection.[14] Clinical reviewers re-screened the original literature search results for studies involving study populations in genotypes 2 to 6. The updated search results were screened for all genotypes (1 through 6).

Systematic Review

A systematic review of all available evidence in the published literature for the clinical outcomes specified in the protocol was conducted, following the methods and procedures outlined in the *Cochrane Handbook for Systematic Reviews of Interventions*.[21]

Electronic Search Strategy

The literature search was performed by an information specialist using a peer-reviewed search strategy (APPENDIX 3). This search updated a previous search from the 2014 CADTH Therapeutic Review on DAAs for CHC genotype 1 infection, originally conducted on January 9, 2014.[14] The updated search incorporates several additional DAAs that were not included in the original report.

Published literature was identified by searching the following bibliographic databases on February 4, 2015: MEDLINE (1946–) with in-process records and daily updates via Ovid; Embase (1974–) via Ovid; Cochrane Central Register of Controlled Trials via Ovid; and PubMed. The search strategy consisted of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were telaprevir, boceprevir, sofosbuvir, simeprevir, ledipasvir, paritaprevir, ombitasvir, dasabuvir, daclatasvir, asunaprevir, grazoprevir, elbasvir, beclabuvir, GS-5816, ABT-530, Incivek, Incivo, Victrelis, SOVALDI, GALEXOS, Olysio, Daklinza, Sunvepra, Viekira, Viekirax, Exviera, Holkira, and Harvoni.

No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. Retrieval was not to be limited by publication date but was limited to English language results. Conference abstracts were excluded from the search results. Alerts were run monthly and regular search updates were performed on databases not providing alert services. The last alert from which studies were selected for inclusion in the review was received on May 1, 2015.

Grey literature (literature that is not commercially published) was identified by searching relevant websites from the following sections of the Grey Matters: A Practical Search Tool for Evidence-Based Medicine checklist:[22] health technology assessment agencies, health economics, clinical practice guidelines, drug and device regulatory approvals, advisories and warnings, drug class reviews, and databases. Google and other Internet search engines

were used to search for additional Web-based materials. Searches were supplemented by reviewing the bibliographies of key papers and through contacting appropriate experts.

Eligibility/Study Selection

Studies were included if the PICOS criteria were satisfied. Selection eligibility criteria (Table 3) were applied to each title and abstract identified in the literature search by two independent review authors in a standardized manner. Any uncertainties were resolved by discussion and consensus with a third review author. Any study passing the selection criteria was obtained in full-text format. The eligibility criteria were then applied and a final decision made for inclusion.

Data Extraction and Management

All information was extracted using a standardized data abstraction form, which was developed, piloted, and modified in advance for the purposes of this systematic review. Data extracted included:

- Study characteristics, key inclusion and exclusion criteria, and definitions where required
- Baseline patient characteristics, demographics, and treatment history
- Interventions evaluated, including dose and duration
- Efficacy and safety results for specified outcomes and, specifically, SVR at 12 and 24 weeks and safety outcomes for the longest reported treatment and follow-up period
- Type of analysis (intention-to-treat or per-protocol)
- Study withdrawals, and
- Study-level definitions of SVR, prior relapse, partial or null response (if standard definitions were not employed), and cirrhosis.

Data were extracted by a single review author and checked in their entirety for accuracy by a second independent reviewer. Any disagreements were resolved through discussion with a third study author until consensus was reached.

Risk of Bias Assessment

Quality assessment was performed by a single review author and checked by a second reviewer. Assessment of bias in comparative randomized studies was completed using the Cochrane Risk of Bias tool (APPENDIX 9).[21]

When data were sufficient for appraisal, we evaluated the single-arm studies using criteria applicable for the evaluation of case series.[23]

When studies with single-arm study data were insufficient for appraisal with this tool, we extracted and investigated attrition rates to provide a rudimentary assessment of the risk of bias.

Definitions

The following definitions were applied in this review:

Cirrhosis: Progressive scarring of liver tissue that may affect performance of treatment for CHC infection. Cirrhosis is typically biopsy-proven in clinical trials of therapies for CHC infection.

Decompensated cirrhosis: The presence of cirrhosis plus one or more complications including esophageal varices, ascites, hepatic encephalopathy, spontaneous bacterial peritonitis, hepatorenal syndrome, or hepatocellular carcinoma.

Genotype: A classification of HCV based on genetic material in the RNA strands of the virus. There are six main genotypes, which are further divided into subtypes in some cases.

Interferon-ineligible: Patients in whom interferon therapy is contraindicated, due to such conditions as anemia, alcohol abuse, advanced or decompensated cirrhosis, or severe psychiatric disorder.

Interferon-intolerant: Patients who discontinue interferon therapy prematurely due to side effects.

Sustained virologic response: Absence of detectable HCV RNA, measured 12 to 24 weeks following the completion of treatment.

Relapse: Recurrence of detectable viral RNA at some point after an undetectable HCV viral load has been achieved during treatment.

Null response: No reduction of at least 1 $\log_{10}$ in HCV RNA during prior treatment.

Partial response: Greater than a 1 $\log_{10}$ reduction in HCV RNA during prior treatment, but patient never achieves undetectable viral RNA.

Treatment-naive: Not previously treated for CHC infection.

Treatment-experienced: One or more previous attempts at treatment of CHC infection. This group may contain a mix of patients who relapsed, those who had a partial response, and those who had a null response to prior treatment.

METAVIR score: Standardized measure of inflammation and fibrosis seen on liver biopsy. The fibrosis score ranges from 0 to 4 (F0 to F4). Patients with higher fibrosis scores are more likely to progress to cirrhosis and hepatocellular carcinoma and may warrant earlier treatment.

Fibrosis score:[4]

- F0 = no fibrosis
- F1 = portal fibrosis without septa
- F2 = portal fibrosis with few septa
- F3 = numerous septa without cirrhosis
- F4 = cirrhosis.

[4] For the purposes of classifying patients into categories of cirrhotic or non-cirrhotic for data analyses where no other information on cirrhosis status was available, METAVIR scores were applied as follows: F0 to F3 = no cirrhosis and F4 = cirrhosis.

Data Synthesis

Included studies were classified based on study populations and relevant comparisons. Prior to quantitative pooling of study-specific outcomes, a thorough qualitative analysis was undertaken to assess clinical and methodological heterogeneity. Studies that were judged to be sufficiently similar in terms of patients, interventions, and study designs were pooled using indirect treatment comparisons. Where substantial heterogeneity was detected (in certain comparisons or subsets of studies), then narrative summaries of findings were reported.

The primary efficacy outcome is SVR at 12 weeks (SVR12; undetectable HCV RNA levels 12 weeks after the end of therapy). We considered SVR12 to be an acceptable surrogate for SVR24 (undetectable HCV RNA levels 24 weeks after the end of treatment).[24] If both SVR12 and SVR24 were reported, SVR24 was used in the analyses to incorporate the longest follow-up data. Where only SVR24 was reported (and not SVR12), it was used in the SVR12 outcome. Separate analyses were performed for each genotype for SVR, and within each genotype, analyses were separated by subpopulations based on prior treatment experience with PR (with or without DAA) or DAA alone, as follows:

- Treatment-naive
- Treatment-experienced
- Treatment-experienced with prior relapse
- Treatment-experienced with prior partial response
- Treatment-experienced with prior null response.

Within each of these five subpopulations, analyses were further separated by the presence or absence of cirrhosis. The analyses for genotype 1 were further separated by genotype subtype 1a and 1b.

Additional analyses were carried out within each subpopulation, as data permitted, to include emerging treatments. Data were sufficient to conduct supplemental analyses that included emerging treatments in the following subgroups:

- SVR12 — genotype 1 treatment-naive: all patients, genotype 1a, genotype 1b, patients with cirrhosis, patients without cirrhosis
- SVR12 — genotype 1 treatment-experienced: all patients, genotype 1a, genotype 1b, patients with cirrhosis, patients without cirrhosis
- SVR12 — genotype 4 treatment-naive: all patients
- Anemia, rash — all genotypes treatment-naive: all patients
- Anemia, rash — all genotypes, treatment-experienced: all patients.

The following sensitivity analyses were also conducted:

- Genotype 1 treatment-naive patients without cirrhosis: Inclusion of the SOF8 + LDV8 treatment regimen, which is indicated only for the patient group with a pre-treatment HCV RNA of less than 6 million IU/mL.
- Genotype 1 treatment-naive and -experienced patients with cirrhosis: Inclusion of the TURQUOISE II study data[25] for treatment regimen PAR/RIT12 + OMB12 + DAS12 + RBV12. This study was not included in the primary analyses, as baseline characteristics were not reported separately by previous treatment experience. Inclusion of this study in the sensitivity analyses assumes equivalent baseline characteristics for treatment-naive and -experienced patients.

- Genotype 3 treatment-naive, all patients, patients with cirrhosis and patients without cirrhosis: Inclusion of data from the BOSON study for SOF12 + PR12 and SOF24 + RBV24 treatment regimens.[26] The BOSON study was used in sensitivity analyses despite being reported only in abstract (Microsoft PowerPoint Presentation) format and presented in oral sessions at the 50th Annual Meeting of the European Association for the Study of the Liver (The International Liver Congress 2015) in Vienna, Austria. This decision was made in consultation with clinical experts who advised that this study presented data for a relatively large group (n = 592) of patients with genotype 2 and 3 CHC infection for the SOF + RBV for 16 or 24 weeks and SOF 12 + PR12 treatment regimens, which had the potential to impact results from the NMA. No clinical differences in harms across genotypes were anticipated; hence, data were pooled across all genotypes for depression, rash, and anemia. Subpopulations based on treatment experience were considered in the analyses where data were sufficient.

For studies that enrolled mixed populations (i.e., treatment-naive and experienced patients or multiple genotypes), the analysis utilized specific subpopulations rather than the entire study population, where data permitted and were adequately reported.

Studies in liver transplant patients were analyzed separately because of the unique characteristics of this population with respect to disease prognosis.[27]

Assessment of Heterogeneity

Studies were assessed for both clinical and methodological diversity. Clinical diversity was assessed by checking that the patients, exposures, and settings were not so different across studies that combining them would be inappropriate. Methodological diversity was assessed by checking that the studies were similar in terms of study design and risk of bias.

Once the reviewers were satisfied that the studies were minimally diverse and that it made sense to pool them, an assessment of statistical heterogeneity was undertaken (e.g., by examining forest plots providing a visual sense of heterogeneity and the I^2 statistic indicating the presence of statistical heterogeneity). If the effects observed across studies were heterogeneous, and varied to a large extent (i.e., $I^2 > 50\%$), the results were again explored to assess whether the differences could be explained by some clinical or methodological feature.

Assessment of Reporting Biases

Reporting bias was assessed by constructing funnel plots, as well as using bias indicators (e.g., Egger, Harbold–Egger) for each outcome.

Bayesian Indirect Treatment Comparisons

As there were no head-to-head RCTs comparing the DAA regimens, we undertook indirect treatment comparisons to provide evidence to inform the research questions on comparative efficacy and safety of DAA treatments for CHC infection.

Bayesian NMAs were conducted for SVR12 and specific adverse events (i.e., rash, anemia, and depression) for both treatment-naive and treatment-experienced patients and for the key subgroups of interest. The choice of outcomes for NMA was based on the sufficiency of the data available to derive robust and consistent network models.[28-30] Treatment-experienced

patients were further analyzed based on their response to prior PR treatment, specifically whether they experienced relapse, partial response, or null response.

A hierarchical approach was taken for data synthesis, with the base-case analyses limited to Health Canada–approved regimens, pre-Notice of Compliance (NOC) regimens submitted to the CADTH Common Drug Review (CDR), and included off-label regimens consisting of drugs for which cost information was available at the time of the associated economic analysis (Table 2: "Currently Available" interventions). Other regimens for which there were the appropriate clinical data, but cost information was lacking for one or more constituent drugs, were included in secondary scenario analyses of all in-scope regimens (Table 2). All analyses of interventions involving peginterferon assume that 2a and 2b provide comparable efficacy.[21]

WinBUGS software version 1.4.3 (MRC Biostatistics Unit, Cambridge, UK) was used to conduct Bayesian NMA using a binomial likelihood model, which allows for the incorporation of multi-arm trials.[31] Pegylated interferon alfa-2a or 2b plus ribavirin dual therapy administered for 48 weeks (PR48) was chosen as the reference group in the model for genotype 1. The reference groups for the comparisons involving genotypes 2 to 4 were defined based on consultation with clinical experts and availability of data and are shown in Table 3.

Table 3: Reference Group Treatments and Sources for PR (or Other Treatment) Used in the NMA

Genotype	Naive	Study	Experienced	Study
Genotype 1	PR48	—	PR48	—
Genotype 2	PR24	—	SOF12 + RBV12	Included study: Jacobson 2013[32]
Genotype 3	PR48	Meta-analysis: Andriulli 2008[33]	PR48	Observational study: Poynard 2009[34]
Genotype 4	PR48	Meta-analysis: Yee 2014[35]	SOF12 + RBV12	Included study: Ruane 2014[36]
Genotype 5 and 6	Data were insufficient for pooling			

NMA = network meta-analysis; PR = pegylated interferon plus ribavirin; RBV = ribavirin; SOF = sofosbuvir.
Note: Numbers after each treatment indicate duration in weeks. See Treatment Regimen Nomenclature table for full description of dosages.

Both fixed and random effects NMAs were conducted; assessment of model fit and choice of model was based on the assessment of the deviance information criterion (DIC) and comparison of residual deviance to number of unconstrained data points.[37]

Point estimates and 95% credible intervals (CrIs) for odds ratios (OR) were derived using Markov chain Monte Carlo methods.[38] Relative risk and absolute risk for an outcome of interest were estimated based on the ORs and the mean proportion of patients who experienced the outcome in the reference group among included studies. The standard conversion of OR to relative risk was used (i.e., relative risk = OR/[1+I_c (OR-1)]) where I_c is the incidence of the event in the control group. Ideally, I_c is the "real" population event rate. Often this event rate is difficult to determine and, indeed, our clinical experts were directly asked this question and could not provide this estimate. An alternative choice is to base this estimate on the "control event rate" that is determined as part of the estimation process of the

NMA. The estimate and its credible intervals were discussed with the clinical experts in order to assess whether the estimates are in alignment with their clinical experience.

Vague priors, N(0, 100^2), were assigned for basic parameters of the treatment effects in the model.[39] For the random effect model, informative priors for the variance parameter were considered based on Turner et al.[40] Informative priors were deemed appropriate given that the networks had an insufficient number of studies to produce robust estimates of between-study variance and, thus, estimates would be dominated by a null prior. Continuity correction was also applied to adjust the zero events for safety outcome. For studies that reported 100% for SVR12, the SVR rate was reduced by one event for sample size (≥ 10) or 0.5 event for sample size (< 10) to avoid the computational issues, as suggested by clinical experts. To ensure convergence was reached, trace plots and the Brooks–Gelman–Rubin statistic were assessed.[31] Three chains were fit in WinBUGS for each analysis, with at least 20,000 iterations, and a burn-in of at least 20,000 iterations.[31,41]

Special Consideration — Single-Arm Studies

Although it is ideal to use RCTs to evaluate treatment effects in study populations, CHC infection is a unique area in which other study designs have been permitted by regulators for the newer regimens. In this review, we considered interventional, single-arm studies (i.e., where there was no formal comparative control group included in the design and possibly an historical control cohort was used) or studies where only a single arm of the study fits the eligibility criteria. The NMA methodology was adjusted in order to incorporate the effect estimates from such single-arm evidence into the networks of treatments.

For single-arm studies, detailed patient baseline characteristics and comprehensive descriptions on the use of historical control cohorts were captured, along with any patient characteristics provided for the historical cohort. No individual patient data were available for analyses, so it was not possible to use comparative effectiveness methods, such as the propensity scores weighting method. Instead, single-arm studies were incorporated into the NMA by creating a "virtual" study where a comparator arm matched for baseline patient characteristics was identified for the single arm.

Based on clinical experts' advice, comprehensive baseline characteristics including previous treatment experience, previous response type, METAVIR score, cirrhosis status, baseline viral load, liver transplant, IL28B, genotype, HIV, renal function, age, and male sex were considered when matching a comparator arm from the randomized studies to an arm from single-arm studies. A summary score of baseline characteristics was derived for treatment-experienced and -naive patients separately using a scoring scheme (Table 4). Based on discussions with the clinical experts, weights of 100%, 50%, and 10% were assigned to each baseline variable in the summary score according to the high, moderate and low clinical importance for matching on the baseline variable.

For each subgroup network analysis, a comparator arm from the included randomized studies with the closest summary score of baseline characteristics was selected for an arm from single-arm studies to create a virtual study.

The matching of comparator studies to single-arm studies was performed within each genotype, by treatment experience (i.e., naive/experienced) and by cirrhosis status (i.e., absent/present) where appropriate.

Table 4: Scoring Scheme for Baseline Characteristics			
Importance	**Variables**	**Treatment-Experienced**	**Treatment-Naive**
HIGH (weight 100%)	**Previous treatment experience**	% of PR	--
	Previous response type	% null responders	--
	METAVIR score	[(%F0*0) + (%F1*1) + (%F2*2) + (%F3*3) + (%F4*4)]/4	[(%F0*0) + (%F1*1) + (%F2*2) + (%F3*3) + (%F4*4)]/4
	Cirrhotic	% cirrhotic	% cirrhotic
	Baseline viral load (log_{10})	Mean/7[a]	Mean/7 [a]
	Liver transplant	Yes = 1, No = 0	Yes = 1, No = 0
	IL28B	[(%CC*0) + (%CT*1) + (%TT*2)]/2	[(%CC*0) + (%CT*1) + (%TT*2)]/2
	Genotype	% genotype 1a[b]	% genotype 1a[b]
MODERATE (weight 50%)	**HIV**	Yes = 1, No = 0	Yes = 1, No = 0
	Renal function[c]	Yes = 1, No = 0	Yes = 1, No = 0
LOW (weight 10%)	**Age**	Mean/SD	Mean/SD
	Sex	% male	% male

F0 = no fibrosis; F1 = portal fibrosis without septa; F2 = portal fibrosis with rare septa; F3 = numerous septa without cirrhosis; F4 = cirrhosis; IL = interleukin; PR = pegylated interferon plus ribavirin; SD = standard deviation.
[a] Cut-off of 7 was used as ≥ 8 treated for hepatitis C.
[b] For genotype 1, % of genotype 1a was considered in the summary score.
[c] Yes/no determination of whether renal function was good was based on the study-reported renal function measures and cut-offs.

Heterogeneity

NMA requires studies to be sufficiently similar in order to pool their results. As a result, heterogeneity across trials in terms of patient characteristics, trial methodologies, and treatment protocols was carefully assessed and described narratively.

To further investigate heterogeneity, where warranted, subgroup analyses were considered, although limited data precluded some analyses specified a priori (e.g., stratifying network by METAVIR fibrosis scores of F4).

Subgroups were selected in advance to compare the treatment effect across subpopulations for which a plausible difference in efficacy or safety could be expected. Subgroup analyses were conducted within each genotype and for each treatment experience category, where appropriate. The following subpopulations of interest were specified a priori:

- Genotype subtypes (e.g., genotype 1a versus 1b)
- Baseline viral load (using study-defined thresholds; data for the study-specified thresholds of 800,000 IU/mL or 1,000,000 IU/mL were pooled for analyses)
- Presence or absence of cirrhosis (if defined differently from METAVIR score F4)
- Compensated cirrhosis, advanced compensated cirrhosis, and decompensated cirrhosis in patients with cirrhosis
- Liver transplant recipients
- HIV, TB, or HBV coinfection.

There were discrepancies in the reporting of adverse events among the studies of treatment-naive patients. In some studies, adverse events were reported for the full treatment period, and for other studies, events were reported for only part of this period (first 12 weeks). In the previous therapeutic review,[14] we explored the impact of these reporting differences through regression analysis and determined that there was no significant interaction between follow-up duration and adverse events. Thus, the NMA analyses of adverse events in the current therapeutic review included data from all studies, regardless of the reporting period.

Consistency

Inconsistency is a conflict between direct evidence and indirect evidence on a comparison between two treatments. Inconsistency was formally assessed by comparing the deviance and DIC statistics of the consistency and inconsistency models.[29,30] To help identify the loops in which inconsistency was present, the posterior mean deviance of the individual data points in the inconsistency model was plotted against their posterior mean deviance in the consistency model.[29] Using the plots, loops in which inconsistency was present could be identified.

Model Diagnostics

Model diagnostics including trace plots and the Brooks–Gelman–Rubin statistic were examined to assess model convergence.[31,39]

Calculation of Relative Risks

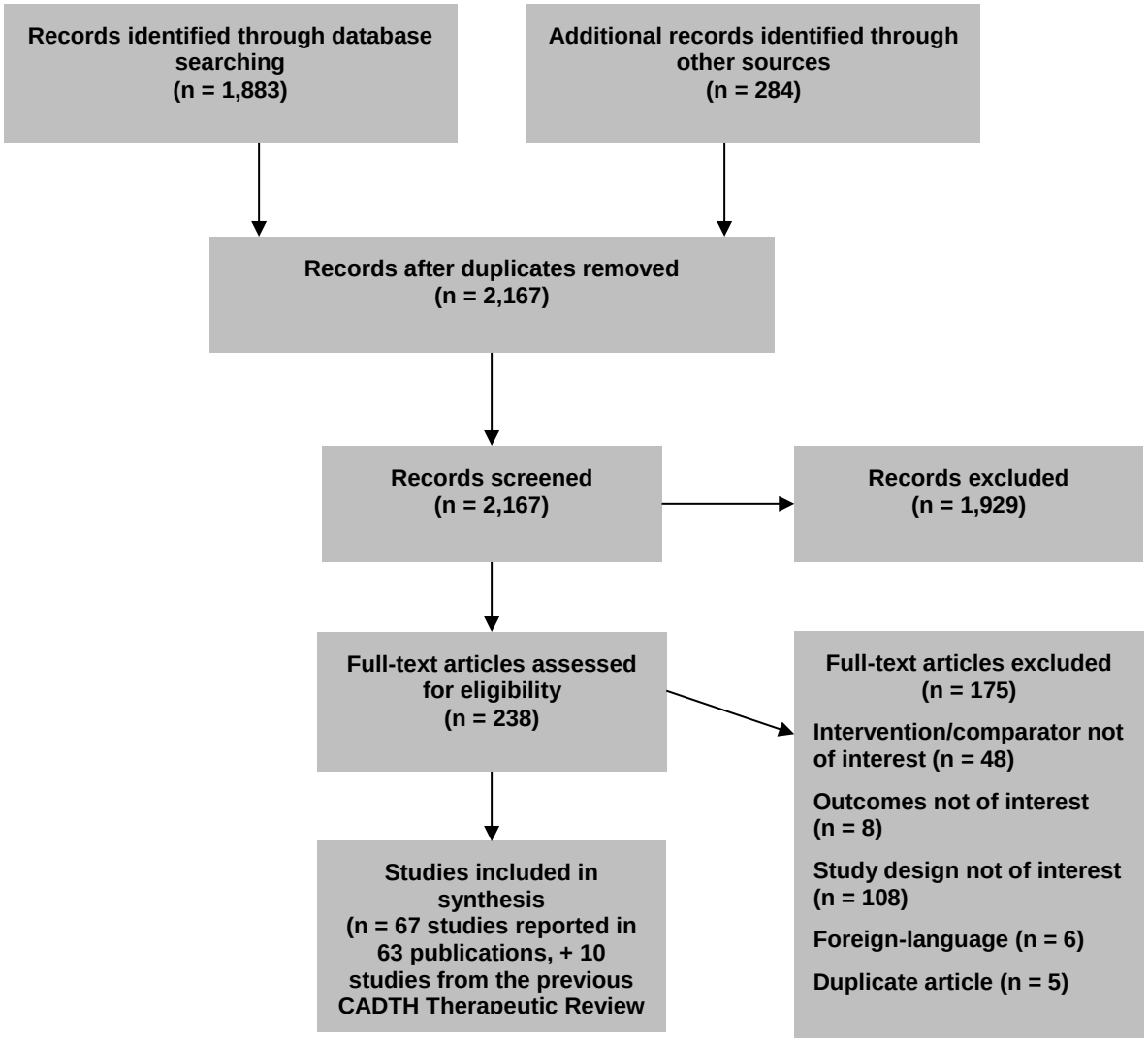
The probabilities of achieving SVR in the reference arms identified in Table 3 were generated directly from the NMA model. They were calculated by using the mean logarithmic (log) odds of the SVR rate in the reference arm averaged over all trials in which the reference treatment was used. Given this assumed baseline (log odds of SVR rate in the reference arm), the NMA model added the logarithmic ORs to the baseline to estimate the absolute probability of achieving SVR in the DAA treatment arms. The relative risks between treatments were further calculated based on the absolute probability of achieving SVR in each treatment arm.

RESULTS: SYSTEMATIC REVIEW

Selection of Primary Studies

A total of 1,883 references were identified through the updated literature search, including 1,078 references from the original CADTH therapeutic review retrieved for re-screening for genotypes 2 to 6. Following a detailed review of titles and abstracts, 240 potentially relevant articles were retrieved in full-text for further review. Of the 240 potentially relevant articles, a total of 63 publications describing 67 unique studies[25,32,36,42-101] were selected for inclusion. The study selection process is described in detail in the PRISMA flowchart presented in Figure 1. Included studies are presented in APPENDIX 4 and excluded studies (with reasons) are presented in APPENDIX 5. Ten studies were carried forward from the previous therapeutic review.[14]

FIGURE 1: PRISMA FLOW DIAGRAM



Characteristics of Included Studies

Trial Characteristics

Included studies predominantly reported on patients with CHC genotype 1 infection,[25,42-45,48-52,55,57,58,60-63,67-69,71-73,75,76,80-86,88-91,94-96,101] or a mix of patients with genotype 1 and other genotypes[56,59,64,65,74,87,92,93,100] (Table 5). Eleven studies[32,53,64-66,74,79,87,92,93,99] reported on patients with CHC genotype 2 infection, 11 on genotype 3,[32,53,64-66,74,77,87,92,93,99] and eight on genotype 4,[36,54,56,59,65,74,87,100] 2 on genotype 5,[59,65] and three on genotype 6.[59,65,100] Only two studies included patients with CHC genotypes 5 (NEUTRINO[65]) and 6 (NEUTRINO[65] and ATOMIC[59]) infection (among others). The ATOMIC study aimed to enroll patients with genotype 5 infection, but no patients infected with this genotype were ultimately included (Table 6).[59]

Table 5: Summary of Study Availability by Genotype

Genotype	Studies Reporting (n)	References
Single Genotype Studies		
1	40	25,42-45,48-52,55,57,58,60-63,67-69,71-73,75,76,80-86,88-91,94-96,101
2	1	79
3	1	77
4	2	36,54
5	0	--
6	0	--
Mixed Genotype Studies		
1 to 3	3	64,92,93
1 or 4	1	56
1,4,6	1	100
1,4 to 6	2	59,65
2, 3	5	32,53,65,66,99
Additional Studies (Outcomes not Reported by Genotype)		
Mixed Genotype	8	47,70,76,78,88,96-98

The included studies stratified by previous treatment experience and subgroups of patients with and without cirrhosis are described in Highlight Box 1.

HIGHLIGHT BOX 1: NUMBER OF STUDIES BY GENOTYPE, TREATMENT EXPERIENCE, AND CIRRHOSIS STATUS

Genotype 1 treatment-naive = 35 studies (additional 5 emerging), treatment experienced = 26 studies (additional 2 emerging)
- Treatment-naive with cirrhosis = 14 studies, without cirrhosis = 29 studies
- Treatment-experienced with cirrhosis = 16 studies, without cirrhosis = 18 studies

Genotype 2 treatment-naive = 5 studies, treatment experienced = 5 studies
- Treatment-naive with cirrhosis = 5 studies, without cirrhosis = 6 studies
- Treatment-experienced with cirrhosis = 4 studies, without cirrhosis = 4 studies

Genotype 3 treatment-naive = 3 studies, treatment experienced = 6 studies
- Treatment-naive with cirrhosis = 3 studies, without cirrhosis = 3 studies
- Treatment-experienced with cirrhosis = 4 studies, without cirrhosis = 6 studies

Genotype 4 treatment-naive = 3 studies, treatment experienced = 2 studies
- Treatment-naive with cirrhosis = 2 studies, without cirrhosis = 2 studies
- Treatment-experienced with cirrhosis = 2 studies, without cirrhosis = 2 studies

Genotype 5 treatment-naive = 1 study, no studies in treatment experienced patients
- Treatment-naive with cirrhosis = 1 study, without cirrhosis = 1 study

Genotype 6 treatment-naive = 3 studies, no studies in treatment experienced patients
- Treatment-naive with cirrhosis = unclear, without cirrhosis = unclear
- Treatment-experienced with cirrhosis = unclear, without cirrhosis = unclear

Post-liver transplant patients = 2 studies

A detailed description of the dosage regimens reported in the included studies has been included in APPENDIX 8. A summary of studies reporting key interferon-regimens of interest is provided in Table 6. All interferon-free regimens of interest, with the exception of DCV24 + SOF24, were represented in the included studies by at least one treatment population.

All included studies were conducted between 2013 and 2015 (Table 7). Sample size ranged from 14 to 870 participants. Included study characteristics for regimens of interest for this therapeutic review are reported in APPENDIX 6.

Fourteen of the 21 studies in treatment-naive patients were randomized studies, as were six of 12 treatment-experienced studies and 14 of the 24 combined treatment-naive and treatment-experienced studies (APPENDIX 6). One study (HALLMARK-DUAL) randomized the treatment-naive arm of the study, but did not randomize the non-responders or treatment-ineligible or -intolerant arms.[72] None of the studies reporting patients post-liver transplant randomized patients to treatment.[46,61] The remaining studies reported single-arm cohorts of the treatment interventions. Four studies of treatment-naive patients[43,57,65,79] and four studies of treatment-experienced patients[32,44,79,101] used historical controls in the study design.

Table 6: Summary of Studies Reporting Approved Interferon-Free Regimens				
Treatment	**Studies Reporting (N)**			
	Treatment-Naive	**Treatment-Experienced**	**Combined Treatment Experience**	**Post-liver Transplant**
SOF8 + LDV8	1	0	1	0
SOF12 + LDV12	4	2	2	0
SOF24 + LDV24	1	2	0	0
PAR/RIT12 + OMB12 + DAS12	1	0	0	0
PAR/RIT12 + OMB12 + DAS12 + RBV12	0	1	1	0
PAR/RIT24 + OMB24 + DAS24 + RBV24	0	0	1	0
DCV24 + ASU24	0	1	2	0
DCV24 + ASU24 + PR24	0	1	0	0
DCV12 + SOF12	0	2	0	0
DCV24 + SOF24	0	0	0	0

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; SOF = sofosbuvir.
Note: Numbers after each treatment indicate duration in weeks. Please refer to Treatment Regimen Nomenclature table for description of dosages.

Studies were predominantly multinational; however, 22 studies were conducted by single nation study groups (USA = 15,[36,43,54,57,58,62,64,65,67,80-83,92,95] Japan = 3,[60,73,79] New Zealand = 2,[52,53] France = 1,[45] Puerto Rico = 1[87]). Twelve studies specifically stated that they included Canadian centres.[25,32,50,55,56,63,65,75,85,86,89,90] Four studies stated they were carried out in North America but did not specify Canadian centre involvement.[48,49,72,101]

Table 7: Summary of Interventions Evaluated					
Intervention	**Publications (n)**	**Individual Trials (n)**	**DB RCT (n)**	**Patients (n)**	**Publication Year**
Included in the NMA					
Treatment-Naive					
PR48	6	6	4	342	2013–2014
SOF24 + RBV24	1	1	0	25	2013
SOF12 + LDV12	4	4	0	500	2014–2015
SOF24 + LDV24	1	1	0	217	2014
SOF8 + LDV8	1	1	0	215	2014
SOF8 + LDV8 + RBV8	1	1	0	216	2014
SOF12 + LDV12 + RBV12	1	1	0	217	2014
SOF24 + LDV24 + RBV24	1	1	0	217	2014
PAR/RIT12 + OMB12 + DAS12	1	1	0	209	2014
PAR/RIT12 + OMB12 + DAS12 + RBV12	2	2	1	577	2014
SOF12 + PR12	2	2	0	379	2013
SIM12 + PR24-48 RGT	2	2	2	521	2014
SOF12 + RBV12	1	1	0	256	2013
PR24	1	1	0	243	2013
Studies From the Previous CADTH Therapeutic Review[14]					
BOC 800 mg every 8 hours	1	1	1	1,097	2011
TEL 750 mg every 8 hours or	3	3	1	1,989	2011–2014

Table 7: Summary of Interventions Evaluated					
Intervention	**Publications (n)**	**Individual Trials (n)**	**DB RCT (n)**	**Patients (n)**	**Publication Year**
1,125 mg every 12 hours					
SIM 150 mg Daily	**1**	**1**	**1**	**386**	**2013**
Treatment-Experienced					
SOF12 + LDV12	2	2	0	123	2014
SOF24 + LDV24	2	2	0	187	2014–2015
SOF12 + LDV12 + RBV12[a]	3	3	0	239	2014–2015
SOF24 + LDV24 + RBV24[a]	1	1	0	111	2014
PAR/RIT12 + OMB12 + DAS12	1	1	0	91	2014
PAR/RIT12 + OMB12 + DAS12 + RBV12	1	1	1	297	2014
DCV24 + ASU24	1	1	0	20	2014
DCV24 + ASU24 + PR24	2	2	0	419	2014–2015
SOF12 + PR12	2	2	0	127	2014–2015
SIM12 + PR48	1	1	0	379	2015
Studies from the Previous CADTH Therapeutic Review[14]					
BOC 800 mg every 8 hours	1	1	1	403	2011
TEL 750 mg every 8 hours	1	1	1	662	2011
SIM 150 mg daily	2	2	2	855	2014
Treatment-Combined					
SOF24 + RBV24	4	4	0	689	2014–2015
SIM12 + SOF12	2	2	0	76	2014–2015
SOF12 + LDV12	2	2	0	209	2014–2015
SOF8 + LDV8	1	1	0	20	2014
SOF8 + LDV8 + RBV8[a]	1	1	0	21	2014
SOF12 + LDV12 + RBV12[a]	3	3	0	234	2014–2015
PAR/RIT12 + OMB12 + DAS12 + RBV12	1	1	0	38	2015
DCV24 + ASU24	2	2	1	867	2014
DCV12 + SOF12	2	2	0	193	2014–2015
SOF12 + PR12	2	2	0	42	2013–2015
SIM12 + PR24-48 RGT	1	1	0	68	2014
SIM12 + PR48	1	1	0	38	2014
SOF12 + RBV12	7	7	1	457	2013–2015
Not Included in the NMA[b]					
Treatment-Naive					
SOF12 + PR12	2	2	0	48	2013–2015
ELB12 + GRZ12	1	1	1	316	2015
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	1	1	0	11	2015
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	1	1	0	10	2015
Studies from the Previous CADTH Therapeutic Review[14]					
TEL 750 mg every 8 hours	1	1	0	540	2011
Treatment-Combined					
PAR/RIT12 + OMB12 + DAS12 + RBV12	2	2	0	239	2014–2015
PAR/RIT24 + OMB24 + DAS24 + RBV24	1	1	0	172	2014

Table 7: Summary of Interventions Evaluated					
Intervention	**Publications (n)**	**Individual Trials (n)**	**DB RCT (n)**	**Patients (n)**	**Publication Year**
SOF12 + RBV12	**1**	**1**	**1**	**207**	**2013**
Post-Liver Transplant					
SOF24 + RBV24	1[c]	1	0	40	2015
PAR/RIT24 + OMB24 + DAS24 + RBV24	1	1	0	34	2014

ASU = asunaprevir; BEC = beclabuvir; b.i.d. = twice daily; BOC = boceprevir; DAS = dasabuvir; DB = double-blind; DCV = daclatasvir; ELB = elbasavir; GRZ = grazoprevir; LDV = ledipasvir; NMA = network meta-analysis; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; SIM = simeprevir; SOF = sofosbuvir; TEL = telaprevir.
Note: Numbers after each treatment indicate duration in weeks. Please refer to Treatment Regimen Nomenclature table for description of dosages. Interventions listed in this table were selected based on prioritized reporting of regimens by CADTH.

[a] Total number of publications does not include the US Food and Drug Administration or European Medicines Agency reports (3 on BOC, 3 on TEL, 3 on SIM, and 3 on SOF).
[b] Includes all patients enrolled in the included studies, including regimens with duration or dose not aligned with the study protocol. Not all patients were included in the NMA.
[c] Data not provided by treatment status.

The studies listed in Table 8 were not included in the base-case analysis for SVR12 because they involved emerging treatments.

Table 8: Studies Not Included in the Base-Case Analysis
Treatment-Naive
Hassanein et al. 2015[54]
Lawitz et al. 2015 C-WORTHY[63]
Muir et al. 2015 UNITY-2[75]
Poordad et al. 2015 UNITY-1[85]
Sulkowski et al. 2015 C-WORTHY[89]
Zeuzem et al., 2015 C-EDGE[100]
Treatment-Experienced
Forns et al. 2015 C-SALVAGE[51]
Lawitz et al. 2015 C-WORTHY[63]
Muir et al. 2015 UNITY-2[75]
Poordad et al. et al. 2015 UNITY-1[85]

Patient Characteristics

Patient characteristics are described in detail in APPENDIX 7.

Enrolled patients were adults aged 18 years and older and the proportion of male participants was generally much higher than 50% (range 28% to 100%).

Patients enrolled in the studies of treatment-naive patients were mostly non-cirrhotic (range 78% to 100%) (when cirrhosis status was reported). In the studies of treatment-experienced populations, patients with cirrhosis were included in proportions ranging from 0% to 100%. SIRIUS (treatment-experienced only),[45] UNITY-2 (treatment-naive and -experienced),[75] Pearlman (treatment-naive and -experienced),[83] C-WORTHY (treatment-naive and -experienced)[63,89] and TURQUOISE II (treatment-naive and -experienced)[25] were the only

studies in which nearly 100% of included patients had cirrhosis. In patients with cirrhosis, data were generally limited to the presence or absence of cirrhosis either as specified by study authors, or as reported in METAVIR scores of F0 to F3 (non-cirrhotic) and F4 (cirrhotic). Studies reporting combined fibrosis scores of F3/F4 were excluded from the analyses.[48,94] In patients with cirrhosis, data were not reported by advanced compensated cirrhosis or early compensated cirrhosis. All studies excluded patients with decompensated cirrhosis.

Baseline viral load, when reported, ranged from 5.6 to 6.8 IU/mL on average.

No studies of patients with HBV or TB coinfection met the inclusion criteria for the systematic review. In general, coinfection with HBV or TB was an exclusion criterion in many of the included studies. Patients with HIV coinfection were included in four studies of treatment-naive patients and three with combined treatment-naive and -experienced patients.[74,82,87,89,90,93,94] No patients with HIV coinfection were included in solely treatment-experienced studies, or in those reporting outcomes for patients post-liver transplant.

Previous treatment experience in the included study populations was predominantly with PR, with few studies reporting treatment experience with a DAA plus PR[42,45,82,84,95] or with a DAA alone.[95] Fifteen studies reported mixed previous treatment experience for enrolled patients, including PR, PR plus DAA and/or DAA alone; however, proportions were not reported individually by genotype.[32,36,46,52,72,75,84,85,95,99] Only one study reported on patients with interferon-free DAA experience (2%).[95]

Data for the efficacy and safety of treatments for CHC infection in patients previously treated unsuccessfully with DAA-PR regimens were limited to four studies that reported SVR rates specifically in this population.[42]

Quality Assessment of Included Studies

The details of the quality assessment for the 77 included studies are provided in APPENDIX 9.[25,32,36,42-111]

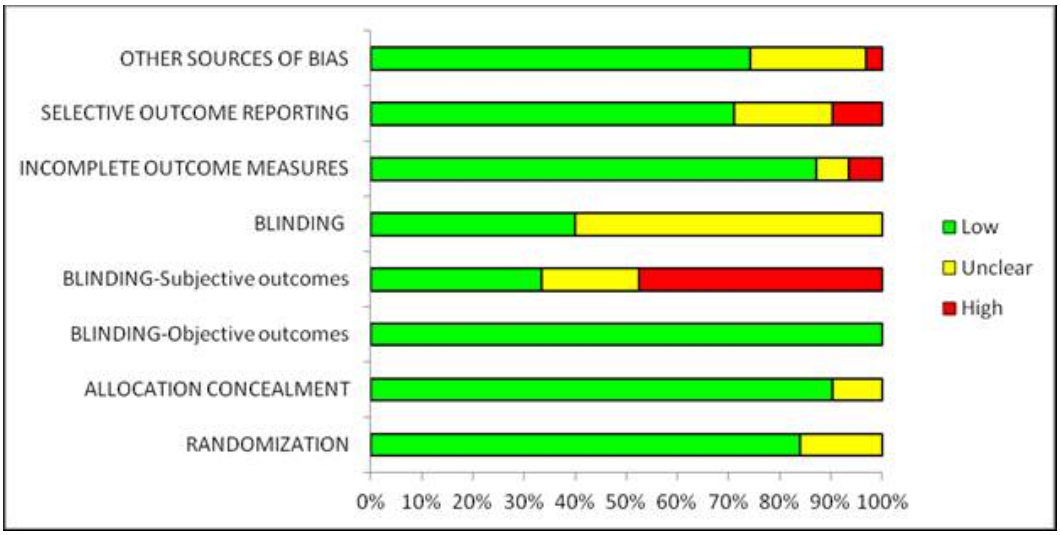
Randomized Studies

Among the 77 included studies, there were 31 randomized and comparative studies,[25,32,36,42-45,49,50,52-55,63,64,68,69,71-73,75,81,83,86,89-92,100,101] including 10 RCTs carried forward from the previous review.[102-111] The remaining studies involved single treatment arms. There were 14, eight, and nine treatment-naive, treatment-experienced, and combined treatment-naive and -experienced studies, respectively.

In general, the included randomized studies were of adequate quality with respect to all domains of quality assessment (Figure 2). Most of the studies used an interactive Web- or voice-response system or central randomization to perform randomization and allocation concealment, although eight trials claimed to be an RCT but did not provide the approach. In the current review, we assessed the risk of bias in blinding domain for newly identified studies separately for objective and subjective outcomes. Regardless of the method of blinding, 21 studies were considered to be of low risk of bias for the objective outcomes, seven of which also provided the blinding approach for subjective outcomes. For the 10 studies carried forward from the previous review, four were judged to have a low risk of bias in the blinding domain as a whole. Twenty-seven trials were of low risk of bias in the domain of incomplete outcome

measures, given that the overall completion rate exceeded 80% and that the number and reasons of early discontinuation were balanced across trial arms. When comparing the reported outcomes of the published article and those in the corresponding protocol, 22 trials were likely free of selective outcome reporting bias; nine studies that either did not report certain outcomes or wrongly reported primary or secondary outcomes were considered at unclear and high risk of bias, respectively. Except for the above assessment domains, eight studies were judged to respectively have unclear and high risk of bias given the other concerns rooted in study design or statistical issues.

FIGURE 2: SUMMARY OF THE RISK OF BIAS ASSESSMENTS FOR THE RANDOMIZED CONTROLLED TRIALS



Single-Arm or Single-Cohort Studies

In an RCT, a key purpose of randomization is to ensure that the populations in the treatment arms being compared are as similar as possible on a number of baseline characteristics, so that any differences in response between groups at the end of study can be attributed solely to the interventions being compared. Many of the included studies (n = 30) evaluated interventions of interest in single groups, or cohorts, of study participants with either no comparator group or comparisons to historical control populations (n = 12). When there is no randomization, and no control, there is little information available to confirm assessment of how the populations being compared truly are comparable. When the control population was enrolled at a different time, for a different purpose from that of the study drug, further comparability issues are raised and there is potential for confounding by variables for which we are unable to control post-hoc. Therefore, many potential confounding variables have not been controlled for in the study design, and rarely were they controlled for in the analysis through statistical means.

For the current review, the quality assessment for single-arm studies was conducted on the attrition rates. Three important sources of bias are allocation, blinding, and attrition. As allocation and blinding in these studies could not be evaluated because of their design, we chose to evaluate attrition following consultation with clinical experts. Patient attrition can bias outcomes if patients with missing outcome data are excluded from the analysis and have less favourable results than others. Further, attrition is the only criterion that could be consistently identified and evaluated across studies. We examined rates of attrition by study, across treatment regimens, and examined these rates in context with the results to identify areas of concern.

Among the 30 included single-arm studies, there were 10, seven, and 13 treatment-naive, treatment-experienced, and treatment-naive and -experienced studies, respectively. In the 10 treatment-naive studies, the attrition rates of 0% to 17.4% were reported for six designed single-arm studies; and 0% to 7.7% for four single arms created from RCTs. In the seven treatment-experienced studies, the attrition rates of 0% to 2.5% were reported for five designed single-arm studies. The remaining two single arms created from RCTs reported 0% or no related information. In the 13 combined studies, the attrition rates of 0% to 24.3% were reported for nine designed single-arm studies and 0% to 47.6% for four single arms created from RCTs. Please refer to Table 9 for details.

Table 9: Summary of Attrition Rates for the Single-Arm Studies

Author, Year, Study Name (if Applicable)	Attrition Rate
Treatment-Naive (N = 10)	
Feld et al., 2014 SAPPHIRE-I[49]	2.7%
Ferenci et al., 2014 PEARL-III[50]	0.5%
Ferenci et al., 2014 PEARL-IV[50]	0.0%
Kohli et al., 2015[57]	0.0%
Kowdley et al., 2013 ATOMIC[59]	7.7%
Lawitz et al., 2013 NEUTRINO[65]	11.0%
Lawitz et al., 2013[64]	4.0%
Osinusi et al., 2013 SPARE-1[81]	10.0%
Osinusi et al., 2015[82]	2.0%
Rodriguez-Torres et al., 2015[87]	17.4%
Treatment-Experienced (N = 7)	
Andreone et al., 2014 PEARL-II[44]	0.0%
Jensen et al., 2015 HALLMARK-QUAD[56]	0.3%
Lawitz et al., 2014[66]	NR
Lok et al., 2014[69]	DUAL A2: NR DUAL B2: NR
Osinusi et al., 2014 SYNERGY[80]	0.0%
Pol S et al., 2015[84]	0.0%
Wyles et al., 2015[95]	0.0%
Combined Treatment-Experienced (N = 13)	
Dieterich et al., 2014[48]	8.5%
Gane et al., 2013 ELECTRON[53]	0.0%
Gane et al., 2014 ELECTRON[52]	0.0%
Jacobson et al., 2013 FUSION[32]	47.6%
Kumada et al., 2014[60]	14.3%
Lalezari et al. et al., 2015[62]	2.6%
Manns et al., 2014 HALLMARK-DUAL[72]	1.7% for IFN ineligible or intolerant pts; 0.5% for naive pts; 0.0% for exp. pts
Molina et al., 2015 PHOTON-2[74]	1.5%
Nelson D. et al., Accepted 2015 ALLY-3 (AI444-218)[77]	NR
Omata M et al., 2014[79]	0.0%
Sulkowski et al., 2015 TURQUOISE-I-1a[91]	3.2%
Sulkowski et al., 2014[92]	24.3% for naive pts with G1 with 24-wk trt; 11.8% for exp pts with G3 with 24-wk trt; 19.2% for naive pts with G2 with 12-wk trt
Sulkowski et al., 2014[93]	0.0%
Treatment Emergent (N = 3)	
Zeuzem et al., 2015 C-EDGE[100]	0.90%
Forns et al., 2015 C-SALVAGE[51]	2.5%
Poordad et al. et al., 2015 UNITY-1[85]	NR

exp = experienced; G1 = genotype 1; G2 = genotype 2; G3 = genotype 3; IFN = interferon; NR = not reported; pts = patients; trt = treatment; wk = week.

RESULTS: EFFICACY — SUSTAINED VIROLOGIC RESPONSE AT 12 WEEKS

Genotype 1

NMAs were conducted for a single efficacy outcome, SVR at 12 weeks. The choice of this outcome for NMA was based on clinical relevance, and the sufficiency of the data available to derive robust and consistent network models. Patient populations were analyzed according to treatment experience (naive or experienced) and then by subgroups within each (e.g., cirrhotic, non-cirrhotic). For each patient group, the relative risks based on the ORs from the NMA are provided, comparing each DAA treatment to PR48. Results for select head-to-head comparisons of the DAA treatment regimens are also presented. A full listing of the random effects model results, as well as model diagnostics for the fixed and random effects models, is available in APPENDIX 10, along with estimated relative risks and absolute risks. Results from additional sensitivity analyses are also discussed in context with the relevant patient populations. Full NMA results for the sensitivity analyses are available in APPENDIX 12.

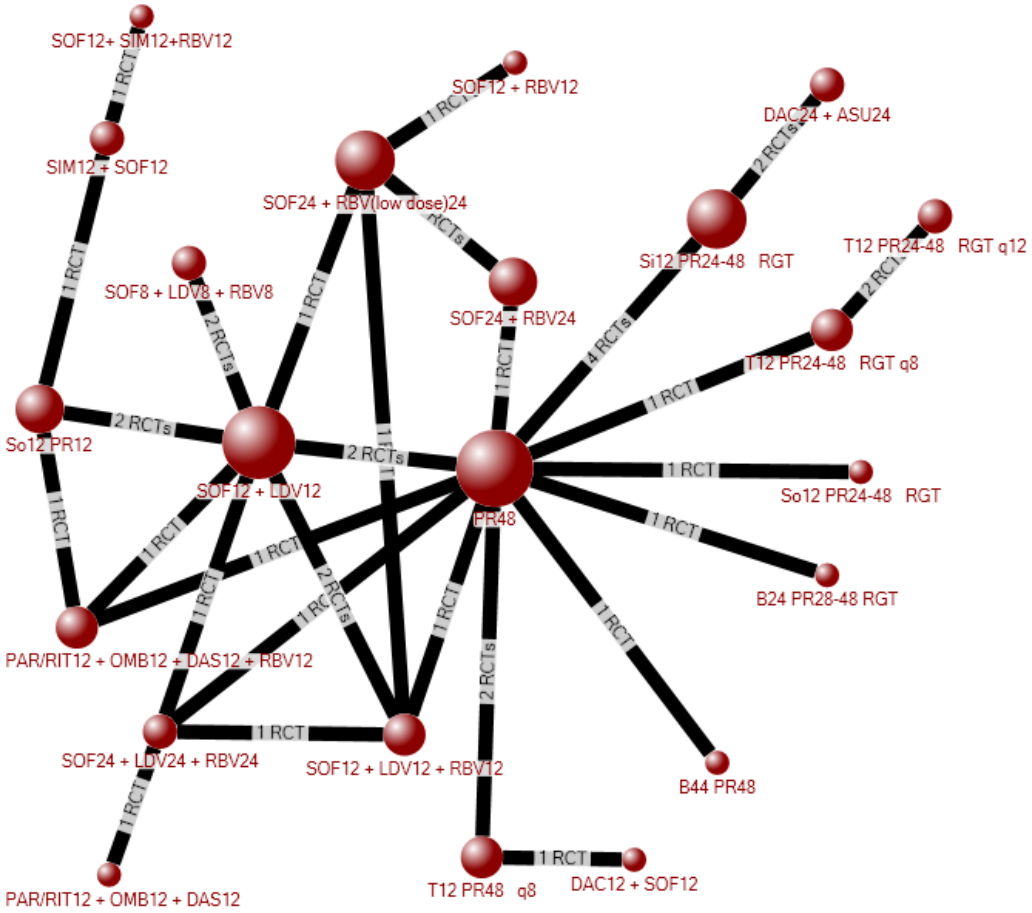
Treatment-Naive Patients

All Patients

The evidence network for SVR12 in treatment-naive genotype 1 patients included 35 studies[43,48-50,52,53,55,57-60,62,64,65,67,68,71-74,81-83,90,92-94,103,105-108] and a total of 6,766 participants (Figure 3). Overall, 22 different treatment regimens were considered, providing for 20 direct treatment comparisons (based on 1 three-arm study and 17 two-arm studies), and 17 treatment estimates based on single-arm studies. Evidence that could be incorporated into the NMA was available for all regimens of interest for treatment-naive patients with genotype 1 infection except for DCV + ASU + PR and DCV24 + SOF24. It should be noted that PAR/RIT12 + OMB12 + DAS12 is only indicated in Canada, and recommended by treatment guidelines, for patients with genotype 1b infection without cirrhosis (i.e., addition of RBV is recommended for all other genotype 1 populations using PAR/RIT12 + OMB12 + DAS 12). SOF8 + LDV8 was not included in the base-case analysis of treatment-naive patients, as it is only indicated in Canada for patients with baseline HCV RNA < 6 million IU/mL, based on post-hoc subgroup analyses showing higher relapse rates among patients with higher viral loads.

The NMA based on this evidence network was consistent (APPENDIX 10).The rate of SVR12 for the reference treatment PR48 was 0.52 (95% CrI 0.47 to 0.57).

FIGURE 3: SVR GENOTYPE 1 TREATMENT-NAIVE PATIENTS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 10. Compared with PR48, all of the DAA treatment strategies currently approved in Canada or recommended by North American guidelines, with the exception of SIM12 + SOF12, significantly improved SVR in genotype 1 treatment-naive patients (relative risk [RR] ranged from 1.48 to 1.86; risk difference [RD] ranged from 25.15% to 44.88%).

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12 ± RBV12 significantly improved SVR compared to SOF24 + RBV24 (which is recommended by the product monograph in genotype 1 only for interferon-ineligible patients undergoing treatment with SOF).
- SOF12 + LDV12 significantly improved SVR compared to SOF12 + PR12, SIM12 + PR24-48 RGT, and DCV24 + ASU24.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared to SOF12 + PR12, SIM12 + PR24-48 RGT, and DCV24 + ASU24.
- DCV24 + ASU24 significantly improved SVR compared to SIM12 + PR24-48 RGT.

Table 10: SVR Genotype 1 Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	PR48	1.48 (1.01 to 1.82)	25.15 (0.68 to 41.08)
SIM12 + SOF12		1.74 (0.98 to 2.01)	38.89 (–1.19 to 49.01)
SOF12 + LDV12		1.86 (1.69 to 2.05)	44.39 (38.84 to 49.69)
SOF12 + PR12		1.59 (1.19 to 1.86)	30.52 (10.12 to 41.99)
SIM12 + PR24-48 RGT		1.51 (1.34 to 1.69)	26.58 (18.69 to 33.53)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.85 (1.68 to 2.05)	44.14 (37.54 to 49.90)
DCV24 + ASU24		1.65 (1.44 to 1.86)	34.02 (23.95 to 41.56)
DCV12 + SOF12		1.85 (1.38 to 2.08)	44.41 (20.34 to 51.27)
PAR/RIT12 + OMB12 + DAS12		1.86 (1.55 to 2.07)	44.88 (28.65 to 50.86)
SIM12 + SOF12	SOF24 + RBV24	1.15 (0.66 to 1.73)	12.03 (–27.46 to 40.11)
SOF12 + LDV12		1.25 (1.05 to 1.83)	19.06 (4.94 to 43.51)
SOF12 + PR12		1.06 (0.80 to 1.55)	4.56 (–16.29 to 29.90)
SIM12 + PR24-48 RGT		1.02 (0.83 to 1.51)	1.55 (–14.96 to 26.68)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.24 (1.05 to 1.83)	18.84 (4.20 to 43.12)
DCV24 + ASU24		1.11 (0.90 to 1.65)	8.81 (–8.78 to 34.12)
DCV12 + SOF12		1.24 (0.90 to 1.84)	18.34 (–8.44 to 44.37)
PAR/RIT12 + OMB12 + DAS12		1.25 (1.00 to 1.83)	19.15 (–0.02 to 44.01)
SOF12 + LDV12	SIM12 + SOF12	1.06 (0.96 to 1.89)	5.38 (–3.48 to 44.79)
SOF12 + PR12		0.92 (0.70 to 1.52)	–7.03 (–27.82 to 25.92)
SIM12 + PR24-48 RGT		0.87 (0.75 to 1.56)	–12.16 (–24.17 to 28.37)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.95 to 1.88)	5.08 (–4.79 to 44.42)
DCV24 + ASU24		0.95 (0.81 to 1.71)	–4.82 (–18.40 to 35.98)
DCV12 + SOF12		1.05 (0.80 to 1.88)	4.85 (–18.67 to 44.16)
PAR/RIT12 + OMB12 + DAS12		1.06 (0.88 to 1.93)	5.37 (–11.49 to 46.64)
SOF12 + PR12	SOF12 + LDV12	0.86 (0.66 to 0.95)	–13.80 (–31.88 to –4.96)
SIM12 + PR24-48 RGT		0.82 (0.74 to 0.88)	–17.78 (–25.67 to –11.10)

Table 10: SVR Genotype 1 Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.96 to 1.03)	–0.09 (–4.31 to 2.32)
DCV24 + ASU24		0.89 (0.79 to 0.96)	–10.34 (–20.24 to –3.38)
DCV12 + SOF12		1.00 (0.77 to 1.06)	0.21 (–22.09 to 5.25)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.83 to 1.06)	0.75 (–16.17 to 5.50)
SIM12 + PR24-48 RGT	SOF12 + PR12	0.95 (0.81 to 1.28)	–4.06 (–17.68 to 17.52)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.16 (1.05 to 1.51)	13.50 (4.18 to 31.93)
DCV24 + ASU24		1.04 (0.87 to 1.39)	3.42 (–11.26 to 24.46)
DCV12 + SOF12		1.15 (0.90 to 1.55)	12.79 (–9.10 to 34.68)
PAR/RIT12 + OMB12 + DAS12		1.16 (0.96 to 1.55)	13.59 (–3.66 to 34.63)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR24-48 RGT	1.22 (1.12 to 1.36)	17.56 (9.71 to 25.74)
DCV24 + ASU24		1.09 (1.01 to 1.18)	7.35 (0.54 to 13.42)
DCV12 + SOF12		1.22 (0.92 to 1.37)	17.63 (–6.50 to 26.33)
PAR/RIT12 + OMB12 + DAS12		1.23 (1.01 to 1.37)	18.21 (0.54 to 26.51)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.90 (0.79 to 0.98)	–10.10 (–20.21 to –1.96)
DCV12 + SOF12		1.00 (0.77 to 1.07)	0.39 (–21.90 to 6.76)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.83 to 1.07)	0.88 (–16.15 to 6.77)
DCV12 + SOF12	DCV24 + ASU24	1.12 (0.85 to 1.27)	9.95 (–12.91 to 20.85)
PAR/RIT12 + OMB12 + DAS12		1.12 (0.92 to 1.27)	10.67 (–6.70 to 21.11)
PAR/RIT12 + OMB12 + DAS12	DCV12 + SOF12	1.00 (0.84 to 1.31)	0.40 (–15.92 to 22.95)
Random Effect Model	Residual Deviance	62.51 vs. 72 data points	
	Deviance Information Criteria	385.205	
Fixed Effect Model	Residual Deviance	63.06 vs. 72 data points	
	Deviance Information Criteria	384.588	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-naive patients, a total of 1,053 additional patients reported in four studies[63,75,85,89,100] were included in the NMA. Nine new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.53 (95% CrI, 0.48 to 0.58).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, the emerging treatments elbasvir 12 weeks (ELB12; 20 mg) + grazoprevir 12 weeks (GRZ12), ELB12 (20 mg) + GRZ12 + RBV12, DCV12 + ASU12 + beclabuvir 12 weeks (BEC12) + RBV12, DCV12 + ASU12 + BEC12, ELB12 (50 mg) + GRZ12, ELB12 (50 mg) + GRZ12 + RBV12, and ELB18 (50 mg)+ GRZ18 + RBV18 significantly improved SVR12. There was no significant difference in SVR12 compared with PR48 for the emerging treatments ELB18 (50 mg) + GRZ18 or ELB8 (50 mg) + GRZ8 + RBV8.

Genotype 1a

The evidence network for SVR12 in treatment-naive genotype 1a patients included 17 studies[43,48-50,55,58,65,71,74,81,83,90,93,94,103,106,108] and a total of 3,594 participants. Overall, 16 treatment regimens were considered, providing for 17 direct treatment comparisons (based on 1 four-arm study and 11 two-arm studies), and six treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.39 (95% CrI, 0.31 to 0.47).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 11. Compared with PR48, three treatment strategies significantly improved SVR in genotype 1a treatment-naive patients (SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12 + RBV12, as well as SIM12 + PR24-48 RGT).

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 significantly improved SVR compared with SOF12 + PR12 and SIM12 + PR24-48 RGT.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SOF12 + PR12.

Table 11: SVR Genotype 1a Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	2.05 (0.89 to 2.95)	40.92 (–4.51 to 62.65)
SIM12 + SOF12		2.06 (0.38 to 2.93)	41.99 (–23.24 to 63.02)
SOF12 + LDV12		2.48 (1.96 to 3.12)	57.22 (41.96 to 65.74)
SOF12 + PR12		1.70 (0.36 to 2.64)	27.41 (–24.76 to 56.05)
SIM12 + PR24-48 RGT		1.83 (1.35 to 2.40)	31.95 (14.23 to 47.59)

Table 11: SVR Genotype 1a Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.47 (1.87 to 3.13)	57.07 (36.45 to 66.05)
SIM12 + SOF12	SOF24 + RBV24	1.01 (0.19 to 2.20)	0.53 (–67.81 to 48.85)
SOF12 + LDV12		1.20 (0.95 to 2.57)	15.73 (–4.91 to 58.02)
SOF12 + PR12		0.84 (0.18 to 1.88)	–12.37 (–68.28 to 37.50)
SIM12 + PR24-48 RGT		0.89 (0.62 to 1.99)	–8.77 (–35.42 to 37.67)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (0.92 to 2.55)	15.36 (–7.72 to 57.82)
SOF12 + LDV12	SIM12 + SOF12	1.18 (0.97 to 6.26)	14.27 (–3.35 to 77.01)
SOF12 + PR12		0.87 (0.29 to 2.56)	–10.69 (–53.38 to 35.25)
SIM12 + PR24-48 RGT		0.88 (0.62 to 4.89)	–9.59 (–35.28 to 58.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (0.94 to 6.16)	13.84 (–6.05 to 77.28)
SOF12 + PR12	SOF12 + LDV12	0.69 (0.16 to 0.95)	–29.61 (–75.97 to –4.43)
SIM12 + PR24-48 RGT		0.74 (0.56 to 0.96)	–25.35 (–41.59 to –3.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.86 to 1.08)	–0.04 (–12.19 to 7.13)
SIM12 + PR24-48 RGT	SOF12 + PR12	1.07 (0.69 to 5.20)	4.47 (–26.86 to 59.84)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.44 (1.03 to 6.37)	28.91 (3.03 to 76.90)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR24-48 RGT	1.35 (0.99 to 1.77)	25.09 (–0.54 to 41.64)
Random Effect Model	Residual Deviance	38.18 vs. 38 data points	
	Deviance Information Criteria	209.769	
Fixed Effect Model	Residual Deviance	38.94 vs. 38 data points	
	Deviance Information Criteria	209.12	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference". Red shading indicates statistically significantly lower SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1a treatment-naive patients, a total of 1,053 additional patients reported in four studies[75,85,89,100] were included in

the NMA. Nine new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.37 (95% CrI, 0.30 to 0.45).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, the emerging treatments ELB12 (20 mg) + GRZ12, ELB12 (50 mg) + GRZ12, and DCV12 + ASU12 + BEC12 with or without RBV significantly improved SVR.

Genotype 1b

The evidence network for SVR12 in treatment-naive genotype 1b patients included 20 studies[43,48-50,55,58,60,65,71,73,74,81,83,90,93,94,103,106,108] and a total of 2,379 participants. Overall, 16 different treatment regimens were considered, providing for 14 direct treatment comparisons (based on 1 four-arm study and 8 two-arm studies), and 11 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.52 (95% CrI, 0.42 to 0.63).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 12. Compared with PR48, three treatment strategies significantly improved SVR in genotype 1b treatment-naive patients (SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12, and DCV24 +ASU24). There was no statistically significant difference between SOF24 + RBV24, SOF12 + PR12 or SIM12 + PR24-48 RGT and PR48.

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 significantly improved SVR compared with SOF12 + PR12, SIM12 + PR24-48 RGT and DCV24 +ASU24.
- No differences were found when SOF12 + LDV12 was compared to PAR/RIT12 + OMB12 + DAS12.
- DCV24 + ASU24 significantly improved SVR compared to SIM12 + PR24-48 RGT.

Table 12: SVR Genotype 1b Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.61 (0.45 to 2.21)	32.42 (–30.84 to 52.91)
SOF12 + LDV12		1.89 (1.58 to 2.34)	46.27 (35.84 to 56.27)
SIM12 + PR24-48 RGT		1.63 (1.39 to 1.96)	32.49 (23.21 to 41.49)
PAR/RIT12 + OMB12 + DAS12		1.86 (1.43 to 2.33)	45.17 (24.22 to 56.26)
DCV24 + ASU24		1.76 (1.48 to 2.13)	39.23 (29.63 to 48.07)
SOF12 + PR12		1.56 (0.56 to 2.09)	29.69 (–22.86 to 48.94)
SOF12 + LDV12	SOF24 + RBV24	1.16 (0.99 to 3.89)	13.39 (–1.27 to 72.97)
SIM12 + PR24-48 RGT		1.00 (0.80 to 3.42)	0.11 (–19.06 to 61.60)

Table 12: SVR Genotype 1b Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12		1.14 (0.90 to 3.79)	12.02 (–8.80 to 70.94)
DCV24 + ASU24		1.08 (0.89 to 3.67)	6.41 (–10.31 to 67.36)
SOF12 + PR12		0.99 (0.37 to 3.00)	–0.89 (–56.03 to 53.99)
SIM12 + PR24-48 RGT	SOF12 + LDV12	0.86 (0.76 to 0.93)	–13.37 (–23.28 to –6.45)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.78 to 1.04)	–0.27 (–21.18 to 3.98)
DCV24 + ASU24		0.93 (0.85 to 0.98)	–6.71 (–14.51 to –1.51)
SOF12 + PR12		0.84 (0.30 to 0.99)	–15.68 (–67.64 to –1.46)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR24-48 RGT	1.15 (0.91 to 1.30)	12.44 (–7.68 to 22.67)
DCV24 + ASU24		1.08 (1.00 to 1.19)	6.49 (0.05 to 14.54)
SOF12 + PR12		0.97 (0.34 to 1.20)	–2.37 (–55.54 to 15.96)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.94 (0.85 to 1.18)	–6.05 (–14.35 to 14.19)
SOF12 + PR12		0.85 (0.31 to 1.06)	–14.25 (–67.21 to 5.44)
SOF12 + PR12	DCV24 + ASU24	0.90 (0.32 to 1.09)	–8.79 (–62.11 to 8.07)
Random Effect Model	Residual Deviance	39.64 vs. 42 data points	
	Deviance Information Criteria	209.409	
Fixed Effect Model	Residual Deviance	39.56 vs. 42 data points	
	Deviance Information Criteria	208.133	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Emerging Treatments

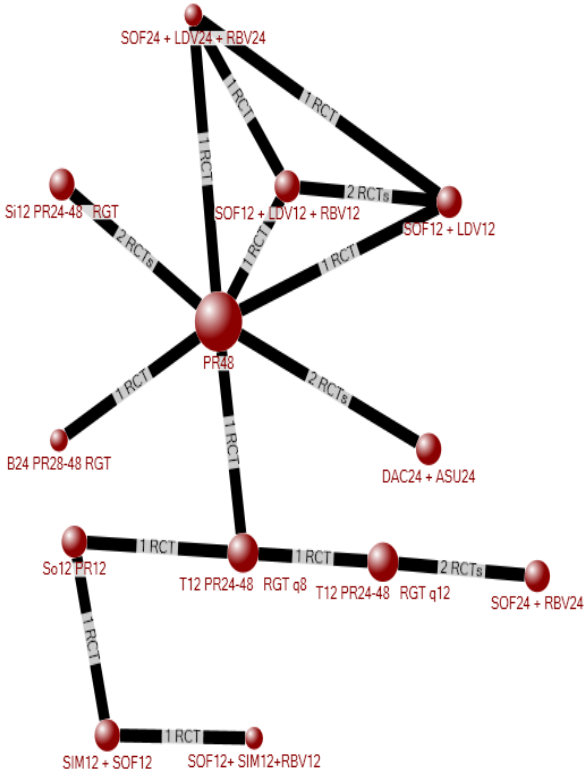
When emerging treatments were added to the network of genotype 1b treatment-naive patients, a total of 268 additional patients reported in four studies[63,75,85,89] were included in the NMA. Four new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.54 (95% CrI, 0.45 to 0.63).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, ELB12 (20 mg) + GRZ12 and DCV12 + ASU12 + BEC12 significantly improved SVR. There was no significant difference for DCV12 + ASU12 + BEC12 + RBV12 or ELB12 (50 mg) + GRZ12 compared with PR48.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 1 patients with cirrhosis included 14 studies[43,55,60,65,68,71-74,83,93,103,106,108] and a total of 539 participants (Figure 4). Overall, 13 different treatment regimens were considered, providing for 11 direct treatment comparisons (based on 1 three-arm study and 8 two-arm studies), and five treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.40 (95% CrI, 0.31 to 0.49).

FIGURE 4: SVR GENOTYPE 1 TREATMENT-NAIVE PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir. Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 13. Compared with PR48, all of the DAA treatment strategies shown (i.e., SOF12 + LDV12, DCV24 + ASU24, SOF12 + PR12 and SIM12 + PR24-48 RGT12), with the exception of SIM12 + SOF12 and SOF24 + RBV24, significantly improved SVR in genotype 1 treatment-naive patients with cirrhosis. When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 significantly improved SVR compared to SIM12 + PR24-48 RGT and SOF24 + RBV24.

Table 13: SVR Genotype 1 Treatment-Naive Patients with Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + SOF12	PR48	2.18 (0.93 to 2.95)	48.42 (–2.57 to 63.34)
SOF12 + PR12		2.04 (1.13 to 2.75)	41.98 (5.31 to 58.28)
SIM12 + PR24-48 RGT		1.70 (1.06 to 2.39)	27.76 (2.43 to 47.38)
SOF24 + RBV24		1.76 (0.62 to 2.57)	30.39 (–15.42 to 54.59)
DCV24 + ASU24		2.25 (1.66 to 2.96)	50.01 (29.20 to 62.29)
SOF12 + LDV12		2.41 (1.89 to 3.09)	56.09 (41.08 to 65.83)
SOF12 + PR12	SIM12 + SOF12	0.94 (0.60 to 1.89)	–5.26 (–34.84 to 35.34)
SIM12 + PR24-48 RGT		0.78 (0.49 to 1.85)	–19.25 (–47.89 to 32.75)
SOF24 + RBV24		0.82 (0.31 to 1.83)	–15.67 (–61.01 to 33.66)
DCV24 + ASU24		1.01 (0.79 to 2.41)	1.20 (–19.74 to 52.62)
SOF12 + LDV12		1.08 (0.90 to 2.58)	6.74 (–9.24 to 58.73)
SIM12 + PR24-48 RGT	SOF12 + PR12	0.84 (0.52 to 1.52)	–13.54 (–43.12 to 24.99)
SOF24 + RBV24		0.86 (0.37 to 1.32)	–11.14 (–47.24 to 17.75)
DCV24 + ASU24		1.09 (0.84 to 1.98)	7.47 (–14.92 to 45.15)
SOF12 + LDV12		1.16 (0.94 to 2.10)	13.31 (–5.23 to 50.44)
SOF24 + RBV24	SIM12 + PR24-48 RGT	1.03 (0.36 to 1.77)	2.00 (–45.42 to 37.74)
DCV24 + ASU24		1.32 (0.95 to 2.10)	21.69 (–4.18 to 48.67)
SOF12 + LDV12		1.41 (1.08 to 2.20)	27.99 (6.69 to 52.83)
DCV24 + ASU24	SOF24 + RBV24	1.27 (0.90 to 3.67)	19.02 (–8.53 to 66.42)
SOF12 + LDV12		1.36 (1.00 to 3.88)	24.98 (0.09 to 71.25)
SOF12 + LDV12	DCV24 + ASU24	1.07 (0.90 to 1.35)	5.83 (–9.18 to 24.72)
Random Effect Model	Residual Deviance	26.88 vs. 30 data points	
	Deviance Information Criteria	141.592	
Fixed Effect Model	Residual Deviance	26.53 vs. 30 data points	

Table 13: SVR Genotype 1 Treatment-Naive Patients with Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
	Deviance Information Criteria	140.778	

ASU = asunaprevir; CrI = confidence interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. - versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference". Red shading indicates statistically significantly lower SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-naive patients with cirrhosis, a total of 305 additional patients reported in three studies[63,75,100] were included in the NMA. Seven new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.39 (95% CrI, 0.32 to 0.46).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, all emerging treatments (i.e., ELB12 [20 mg] + GRZ12, DCV12 + ASU12 +BEC12 + RBV12, ELB12 [50 mg] + GRZ12 with or without RBV, ELB18 [50 mg] + GRZ18 with or without RBV), except for DCV12 + ASU12 + BEC12 significantly improved SVR.

Sensitivity Analysis

PAR/RIT12 + OMB12 + DAS12 + RBV12 could not be included in the base-case analyses of patients with cirrhosis because the only trial evaluating this regimen in this population was the TURQUOISE II study,[25] which did not present separate baseline patient characteristics for treatment-naive and -experienced patients. As described in the Methods section, such data were required for the matching procedure used to incorporate data from single-arm trials. Baseline characteristics data by previous treatment experience were made available to the reviewers by the manufacture, but could not be utilized because permission was not granted to report these data in the review. To permit inclusion of PAR/RIT12 + OMB12 + DAS12 + RBV12 in the analysis of patients with cirrhosis, an assumption was made in consultation with clinical experts that the combined baseline characteristics reported for treatment-experienced and -naive patients in TURQUOISE II could be applied to each of these groups. Addition of this treatment to the network extended the treatment network by one treatment node and added one study. The rate of SVR12 for the reference treatment PR48 was 0.38 (95% CrI, 0.31 to 0.48).

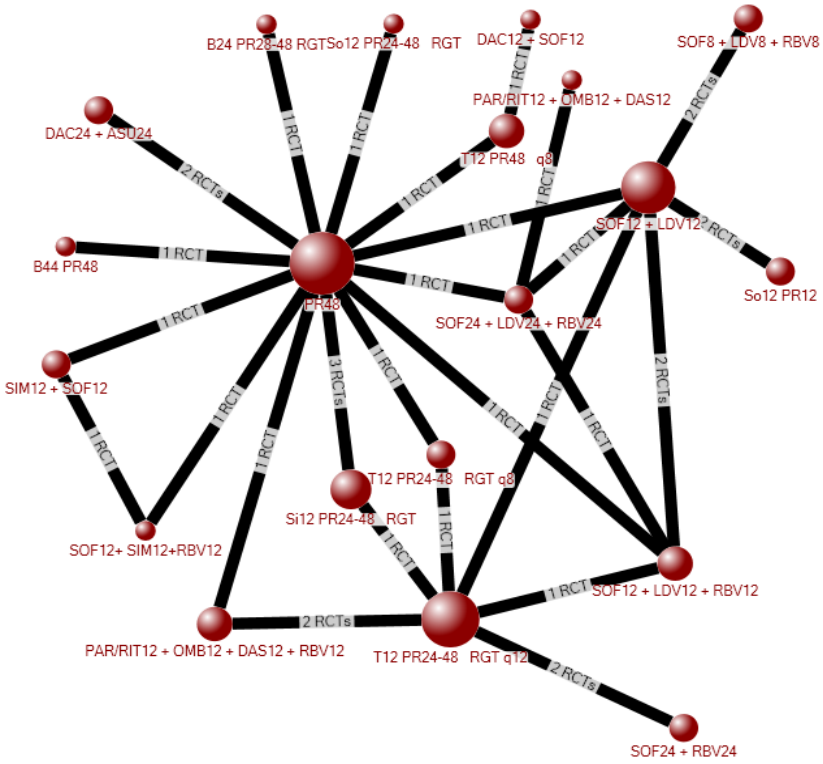
Compared with PR48, PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR among treatment-naive patients with cirrhosis (RR 2.42 [1.94 to 3.06], RD 55.49% [42.85 to 64.82]) (APPENDIX 12). PAR/RIT12 + OMB12 + DAS12 + RBV12 did not significantly improve SVR compared with SOF12 + LDV12 ± RBV12, DCV24 + ASU24 or SOF12 + PR12, but did significantly improve SVR compared with SIM12 + PR24-48 RGT (RR 1.42 (1.09 to 2.17), RD 28.10% (7.34 to 51.42)).

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 1 patients without cirrhosis included 29 studies[43,48-50,52,55,58-60,62,64,65,67,68,71-74,82,85,90,92-94,103,105,106,108] and a total of 6,018

participants (Figure 5). Overall, 20 different treatment regimens were considered, providing for 25 direct treatment comparisons (based on 1 four-arm study and 14 two-arm studies), and 14 treatment estimates (based on 14 single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.49 (95% CrI, 0.44 to 0.55).

FIGURE 5: SVR GENOTYPE 1 TREATMENT-NAIVE PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatments compared with PR48 and each other are presented in Table 14. Compared with PR48, all of the DAA treatment strategies (i.e., SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12, DCV24 + ASU24, DCV12 + SOF12, SIM12 + PR24-48 RGT, SOF24 + RBV24, and SOF12 + PR12) except SIM12 + SOF12 significantly improved SVR in genotype 1 treatment-naive patients without cirrhosis.

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 significantly improved SVR compared with SOF12 + PR12, SIM12 + PR24-48 RGT, SOF24 + RBV24, and DCV24 + ASU24.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SIM12 + PR24-48 RGT, and SOF24 + RBV24.
- DCV24 + ASU24 significantly improved SVR compared with SIM12 + PR24-48 RGT.

Table 14: SVR Genotype 1 Treatment-Naive Patients Without Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + LDV12	PR48	1.98 (1.78 to 2.23)	48.13 (42.00 to 53.86)
SIM12 + PR24-48 RGT		1.59 (1.41 to 1.78)	29.01 (21.13 to 35.90)
SOF24 + RBV24		1.63 (1.29 to 1.90)	31.35 (14.35 to 41.59)
PAR/RIT12 + OMB12 + DAS12		1.93 (1.34 to 2.21)	46.46 (16.32 to 53.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.94 (1.75 to 2.18)	46.42 (40.01 to 52.07)
DCV24 + ASU24		1.82 (1.64 to 2.03)	40.30 (33.46 to 46.13)
DCV12 + SOF12		1.90 (1.28 to 2.21)	44.71 (13.88 to 53.72)
SOF12 + PR12		1.77 (1.28 to 2.07)	38.24 (13.72 to 48.79)
SIM12 + SOF12		1.80 (0.80 to 2.19)	39.97 (–10.17 to 53.34)
SIM12 + PR24-48 RGT	SOF12 + LDV12	0.80 (0.72 to 0.88)	–19.09 (–27.55 to –11.50)
SOF24 + RBV24		0.83 (0.65 to 0.93)	–16.64 (–33.40 to –6.98)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.67 to 1.04)	–1.19 (–31.73 to 4.18)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.93 to 1.03)	–1.67 (–6.67 to 2.79)
DCV24 + ASU24		0.92 (0.85 to 0.98)	–7.78 (–14.50 to –1.82)
DCV12 + SOF12		0.97 (0.66 to 1.04)	–2.99 (–32.89 to 3.57)
SOF12 + PR12		0.90 (0.67 to 0.98)	–9.76 (–31.50 to –2.20)
SIM12 + SOF12		0.92 (0.41 to 1.04)	–7.96 (–57.50 to 3.37)
SOF24 + RBV24	SIM12 + PR24-48 RGT	1.03 (0.81 to 1.19)	2.33 (–14.90 to 13.98)
PAR/RIT12 + OMB12 + DAS12		1.22 (0.83 to 1.38)	17.23 (–13.26 to 26.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.12 to 1.37)	17.34 (9.89 to 25.62)
DCV24 + ASU24		1.14 (1.03 to 1.29)	11.25 (2.43 to 20.41)
DCV12 + SOF12		1.19 (0.81 to 1.38)	15.41 (–14.95 to 26.65)
SOF12 + PR12		1.12 (0.80 to 1.30)	9.18 (–15.63 to 21.62)
SIM12 + SOF12		1.14 (0.50 to 1.37)	10.64 (–39.86 to 26.20)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	1.18 (0.83 to 1.50)	14.50 (–14.21 to 31.99)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (1.07 to 1.48)	14.97 (6.22 to 30.43)
DCV24 + ASU24		1.11 (0.97 to 1.42)	8.88 (–2.50 to 26.36)

Table 14: SVR Genotype 1 Treatment-Naive Patients Without Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV12 + SOF12		1.16 (0.79 to 1.49)	12.69 (–17.26 to 31.50)
SOF12 + PR12		1.08 (0.79 to 1.37)	6.71 (–17.30 to 24.57)
SIM12 + SOF12		1.10 (0.49 to 1.46)	8.05 (–41.89 to 30.15)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.00 (0.93 to 1.45)	–0.42 (–6.73 to 29.60)
DCV24 + ASU24		0.94 (0.85 to 1.37)	–6.27 (–14.33 to 24.08)
DCV12 + SOF12		0.98 (0.68 to 1.44)	–1.50 (–30.97 to 28.75)
SOF12 + PR12		0.92 (0.67 to 1.29)	–7.38 (–31.66 to 19.83)
SIM12 + SOF12		0.94 (0.42 to 1.33)	–5.47 (–54.82 to 23.02)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.94 (0.86 to 1.00)	–6.06 (–13.14 to 0.39)
DCV12 + SOF12		0.99 (0.67 to 1.07)	–1.41 (–31.12 to 5.98)
SOF12 + PR12		0.92 (0.66 to 1.02)	–7.90 (–32.15 to 1.78)
SIM12 + SOF12		0.93 (0.41 to 1.07)	–6.42 (–56.28 to 6.07)
DCV12 + SOF12	DCV24 + ASU24	1.05 (0.72 to 1.16)	4.43 (–25.70 to 13.74)
SOF12 + PR12		0.98 (0.70 to 1.11)	–1.80 (–26.65 to 9.06)
SIM12 + SOF12		1.00 (0.45 to 1.16)	–0.32 (–49.62 to 13.39)
SOF12 + PR12	DCV12 + SOF12	0.94 (0.67 to 1.38)	–5.85 (–31.20 to 25.09)
SIM12 + SOF12		0.96 (0.44 to 1.37)	–4.09 (–52.19 to 25.16)
SIM12 + SOF12	SOF12 + PR12	1.02 (0.46 to 1.45)	1.58 (–48.65 to 29.35)
Random Effect Model	Residual Deviance	57.81 vs. 61 data points	
	Deviance Information Criteria	346.783	
Fixed Effect Model	Residual Deviance	60.76 vs. 61 data points	
	Deviance Information Criteria	346.998	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-naive non-cirrhotic patients, a total of 776 additional patients reported in three additional studies[85,89,100] were included in the NMA. Four new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.50 (95% CrI, 0.44 to 0.54).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, ELB12 (20 mg) + GRZ12, ELB12 (50 mg) + GRZ12, and DCV12 + ASU12 + BEC12 significantly improved SVR. There was no significant difference between PR48 and ELB12 (20 mg) + GRZ12 + RBV12, ELB8 (50 mg) + GRZ8 + RBV8, or ELB12 (50 mg) + GRZ12 + RBV12.

Sensitivity Analysis

Sensitivity analyses were conducted to include the SOF8 + LDV8 treatment regimen for the analysis of treatment-naive patients without cirrhosis. This treatment regimen was not included in the base-case analyses, as the current Health Canada–approved use is in treatment-naive patients without cirrhosis who have a pre-treatment HCV RNA of < 6 million IU/mL. Many of the studies of SOF8 + LDV8 did not specify the pre-treatment HCV RNA levels of the included participants. Because clinical input indicated that a large proportion of genotype 1 treatment-naive patients are likely to have HCV RNA levels of < 6 million IU/mL, a sensitivity analysis was conducted to incorporate SOF8 + LDV8 trial arms into the NMA for treatment-naive patients without cirrhosis. Addition of this treatment extended the network by one treatment node from one study (LONESTAR).[67] The rate of SVR12 for the reference treatment PR48 was 0.49 (95% CrI, 0.44 to 0.55).

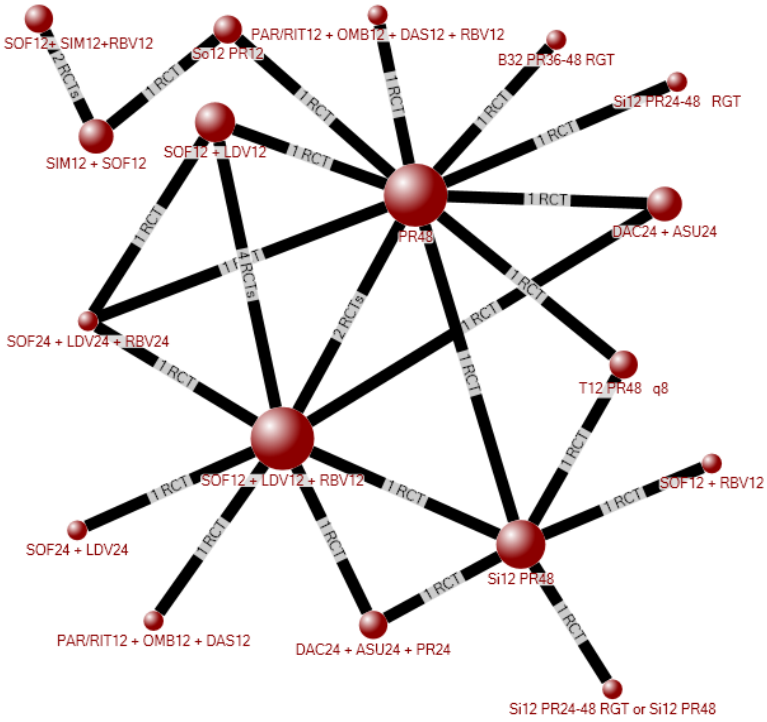
Compared with PR48, SOF8 + LDV8 significantly increased SVR (RR 1.93 [1.66 to 2.19], RD 45.90% [34.30 to 52.72]) (APPENDIX 12). Compared with SOF12 + LDV12, no significant improvements in SVR were found. Compared with PAR/RIT12 + OMB12 + DAS12 ± RBV, DCV24 + ASU24, and DCV12 + SOF12, there were no significant improvements in SVR with SOF8 + LDV8. There was a significant improvement in SVR when SOF8 + LDV8 was compared with SIM12 + PR24-48 RGT, and a marginally significant improvement in SVR when compared with SOF12 + PR12.

Treatment-Experienced Patients

All Patients

The evidence network for SVR12 in treatment-experienced genotype 1 patients included 22 studies[42,44,45,48,52,53,56,60,67-69,72,73,80,83,84,86,95,101,102,104,110,111] and a total of 4,146 participants (Figure 6). Overall, 18 different treatment regimens were considered, providing for 17 direct treatment comparisons (based on 1 four-arm study and 11 two-arm studies), and 14 treatment estimates based on single-arm studies. Evidence that could be incorporated in the NMA was available for all regimens of interest for treatment-experienced patients with genotype 1 infection, except DCV + SOF for either 12 or 24 weeks. It should be noted that PAR/RIT12 + OMB12 + DAS12 is indicated in Canada, and recommended by treatment guidelines, only for patients with genotype 1b infection without cirrhosis (i.e., addition of RBV is recommended for all other genotype 1 populations using PAR/RIT12 + OMB12 + DAS 12). The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.26 (95% CrI, 0.23 to 0.28).

FIGURE 6: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 15. Compared with PR48, all of the DAA treatment strategies significantly improved SVR in genotype 1 treatment-experienced patients (RR ranged from 2.72 to 3.75; RD ranged from 44.29% to 70.86%).

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SOF12 + PR12, SIM12 + PR24-48 RGT, SIM12 + PR48, and DCV24 + ASU24.
- DCV24 + ASU24 significantly improved SVR when compared with SIM12 + PR48.
- DCV24 + ASU24 + PR24 significantly improved SVR compared with SIM12 + PR48 and SIM12 + PR24-48 RGT.

Table 15: SVR Genotype 1 Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + LDV12	PR48	3.69 (3.28 to 4.14)	69.55 (62.24 to 73.72)
SOF24 + LDV24		3.63 (2.72 to 4.15)	68.70 (44.88 to 74.52)
SIM12 + PR24-48 RGT		2.72 (2.05 to 3.28)	44.29 (27.26 to 56.63)

Table 15: SVR Genotype 1 Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR48		2.85 (2.28 to 3.36)	47.62 (34.04 to 57.50)
PAR/RIT12 + OMB12 + DAS12		3.67 (2.31 to 4.17)	69.88 (33.76 to 74.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.75 (3.35 to 4.20)	70.86 (65.37 to 74.46)
DCV24 + ASU24		3.07 (2.50 to 3.59)	53.31 (39.87 to 62.33)
DCV24 + ASU24 + PR24		3.53 (3.03 to 4.01)	65.50 (54.48 to 71.34)
SOF12 + PR12		3.10 (2.30 to 3.70)	54.23 (34.14 to 65.37)
SIM12 + SOF12		3.52 (2.25 to 4.10)	65.68 (32.55 to 73.75)
SOF24 + LDV24	SOF12 + LDV12	0.99 (0.75 to 1.08)	–0.91 (–24.07 to 7.29)
SIM12 + PR24-48 RGT		0.74 (0.56 to 0.88)	–25.05 (–42.06 to –10.89)
SIM12 + PR48		0.77 (0.63 to 0.89)	–21.80 (–35.12 to –10.51)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.63 to 1.09)	0.40 (–35.02 to 8.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.95 to 1.10)	1.17 (–4.42 to 8.53)
DCV24 + ASU24		0.83 (0.70 to 0.93)	–15.95 (–28.99 to –6.00)
DCV24 + ASU24 + PR24		0.96 (0.85 to 1.05)	–3.98 (–14.67 to 4.10)
SOF12 + PR12		0.84 (0.63 to 0.97)	–15.19 (–34.86 to –2.71)
SIM12 + SOF12		0.96 (0.61 to 1.07)	–3.52 (–37.45 to 6.02)
SIM12 + PR24-48 RGT	SOF24 + LDV24	0.75 (0.57 to 1.02)	–23.51 (–41.25 to 1.57)
SIM12 + PR48		0.78 (0.64 to 1.04)	–20.34 (–34.46 to 2.89)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.65 to 1.32)	1.02 (–32.41 to 23.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.95 to 1.37)	1.98 (–4.56 to 25.80)
DCV24 + ASU24		0.85 (0.70 to 1.12)	–14.46 (–28.77 to 8.63)
DCV24 + ASU24 + PR24		0.97 (0.85 to 1.28)	–2.85 (–14.07 to 19.93)
SOF12 + PR12		0.86 (0.64 to 1.15)	–13.64 (–34.08 to 10.61)
SIM12 + SOF12		0.98 (0.62 to 1.29)	–2.34 (–36.26 to 20.69)
SIM12 + PR48	SIM12 + PR24-48 RGT	1.05 (0.81 to 1.42)	3.24 (–14.71 to 22.88)
PAR/RIT12 + OMB12 + DAS12		1.34 (0.84 to 1.79)	24.31 (–11.46 to 42.75)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.38 (1.16 to 1.82)	26.51 (13.09 to 43.33)

Table 15: SVR Genotype 1 Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24		1.13 (0.88 to 1.50)	9.01 (–9.58 to 27.52)
DCV24 + ASU24 + PR24		1.30 (1.06 to 1.72)	20.97 (4.78 to 38.50)
SOF12 + PR12		1.14 (0.83 to 1.54)	9.81 (–13.35 to 29.65)
SIM12 + SOF12		1.29 (0.83 to 1.72)	20.51 (–11.96 to 39.47)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	1.28 (0.83 to 1.60)	21.17 (–12.37 to 36.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.32 (1.15 to 1.60)	23.14 (12.49 to 36.50)
DCV24 + ASU24		1.08 (0.87 to 1.33)	5.71 (–10.05 to 20.58)
DCV24 + ASU24 + PR24		1.24 (1.11 to 1.46)	17.55 (8.47 to 28.21)
SOF12 + PR12		1.09 (0.79 to 1.37)	6.70 (–16.23 to 23.28)
SIM12 + SOF12		1.24 (0.80 to 1.52)	17.68 (–15.49 to 32.63)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.94 to 1.61)	0.71 (–5.68 to 36.30)
DCV24 + ASU24		0.84 (0.69 to 1.32)	–15.64 (–29.53 to 19.22)
DCV24 + ASU24 + PR24		0.96 (0.84 to 1.50)	–3.89 (–15.52 to 29.74)
SOF12 + PR12		0.85 (0.63 to 1.34)	–14.52 (–35.28 to 20.90)
SIM12 + SOF12		0.96 (0.62 to 1.49)	–3.38 (–35.82 to 30.67)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.82 (0.68 to 0.92)	–17.34 (–30.78 to –7.78)
DCV24 + ASU24 + PR24		0.95 (0.83 to 1.02)	–5.21 (–16.17 to 1.51)
SOF12 + PR12		0.83 (0.62 to 0.95)	–16.48 (–36.36 to –4.75)
SIM12 + SOF12		0.95 (0.61 to 1.04)	–4.84 (–37.73 to 3.28)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.15 (0.99 to 1.38)	11.88 (–0.72 to 25.84)
SOF12 + PR12		1.01 (0.76 to 1.26)	0.71 (–19.61 to 17.55)
SIM12 + SOF12		1.15 (0.73 to 1.39)	12.02 (–21.84 to 26.89)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.88 (0.66 to 1.04)	–10.88 (–31.66 to 3.25)
SIM12 + SOF12		1.01 (0.64 to 1.15)	0.48 (–33.13 to 12.62)
SIM12 + SOF12	SOF12 + PR12	1.13 (0.78 to 1.42)	10.68 (–16.51 to 26.91)
Random Effect Model	Residual Deviance	49.23 vs. 54 data points	
	Deviance Information Criteria	285.992	
Fixed Effect Model	Residual Deviance	49.08 vs. 54 data points	

Table 15: SVR Genotype 1 Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
	Deviance Information Criteria	284.484	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference". Red shading indicates statistically significantly lower SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-experienced patients, a total of 680 additional patients reported in four additional studies[51,63,75,85] were included in the NMA. Seven new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 2.3 (95% CrI, 0.21 to 0.26).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, all seven significantly increased SVR (RR ranged from 3.80 to 4.20; RR ranged from 65.61 to 75.14).

Genotype 1a

The evidence network for SVR12 in treatment-experienced genotype 1a patients included 10 studies[42,45,48,56,83,86,101,102,104,110] and a total of 1,683 participants. Overall, 14 different treatment regimens were considered, providing for nine direct treatment comparisons (based on 1 three-arm study and 6 two-arm studies), and five treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.26 (95% CrI, 0.21 to 0.32).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 16. Compared with PR48 dual therapy, all of the DAA treatment strategies significantly improved SVR in genotype 1 treatment-experienced patients (RR ranged from 2.52 to 3.72; RD ranged from 39.83% to 71.23%), except for SIM12 + PR48 and SOF24 + LDV24.

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SIM12 + PR24-48 RGT and SIM12 + PR48.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 also significantly improved SVR compared with SOF12 + PR12.

Table 16: SVR Genotype 1a Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR24-48 RGT	PR48	2.52 (1.38 to 3.49)	39.83 (9.98 to 58.41)
SIM12 + PR48		2.14 (0.71 to 3.26)	29.87 (–7.56 to 53.83)

Table 16: SVR Genotype 1a Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.72 (2.97 to 4.62)	71.23 (58.63 to 76.94)
DCV24 + ASU24 + PR24		3.18 (1.85 to 4.12)	57.79 (22.37 to 70.21)
SOF12 + PR12		3.02 (1.80 to 3.97)	53.38 (21.52 to 67.20)
SIM12 + SOF12		3.51 (2.08 to 4.46)	66.76 (29.35 to 75.36)
SOF12 + LDV12		3.56 (2.79 to 4.46)	67.38 (50.96 to 74.76)
SOF24 + LDV24		3.21 (0.62 to 4.34)	59.33 (–9.94 to 74.69)
SIM12 + PR48	SIM12 + PR24-48 RGT	0.85 (0.30 to 1.55)	–9.76 (–48.78 to 24.50)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.47 (1.12 to 2.60)	31.16 (9.98 to 58.40)
DCV24 + ASU24 + PR24		1.25 (0.94 to 1.77)	16.86 (–3.86 to 33.89)
SOF12 + PR12		1.19 (0.73 to 2.10)	12.94 (–19.84 to 43.10)
SIM12 + SOF12		1.38 (0.85 to 2.39)	25.57 (–10.87 to 53.53)
SOF12 + LDV12		1.41 (1.05 to 2.49)	27.21 (4.05 to 55.08)
SOF24 + LDV24		1.26 (0.25 to 2.28)	18.01 (–51.29 to 50.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR48	1.73 (1.22 to 4.79)	41.02 (17.59 to 72.74)
DCV24 + ASU24 + PR24		1.48 (0.86 to 4.04)	26.89 (–9.50 to 63.18)
SOF12 + PR12		1.40 (0.83 to 3.87)	22.65 (–11.68 to 58.92)
SIM12 + SOF12		1.62 (0.97 to 4.44)	35.20 (–1.68 to 70.48)
SOF12 + LDV12		1.66 (1.14 to 4.78)	37.06 (10.44 to 72.05)
SOF24 + LDV24		1.46 (0.30 to 4.11)	26.96 (–41.74 to 66.63)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.86 (0.52 to 1.01)	–13.26 (–45.81 to 1.18)
SOF12 + PR12		0.82 (0.51 to 0.98)	–17.68 (–45.98 to –2.23)
SIM12 + SOF12		0.96 (0.59 to 1.07)	–4.16 (–38.62 to 6.42)
SOF12 + LDV12		0.96 (0.82 to 1.08)	–3.56 (–17.86 to 6.83)
SOF24 + LDV24		0.88 (0.17 to 1.05)	–11.28 (–80.55 to 4.28)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.95 (0.61 to 1.56)	–4.26 (–33.95 to 28.53)
SIM12 + SOF12		1.10 (0.69 to 1.77)	8.21 (–25.74 to 39.38)

Table 16: SVR Genotype 1a Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + LDV12		1.11 (0.91 to 1.85)	9.56 (–8.37 to 41.81)
SOF24 + LDV24		1.02 (0.20 to 1.70)	1.80 (–67.68 to 37.17)
SIM12 + SOF12	SOF12 + PR12	1.15 (0.84 to 1.61)	12.08 (–11.52 to 33.31)
SOF12 + LDV12		1.17 (0.95 to 1.88)	13.79 (–4.39 to 43.00)
SOF24 + LDV24		1.07 (0.21 to 1.70)	5.67 (–63.41 to 37.60)
SOF12 + LDV12	SIM12 + SOF12	1.01 (0.84 to 1.64)	0.65 (–14.67 to 35.95)
SOF24 + LDV24		0.93 (0.18 to 1.49)	–6.44 (–75.11 to 30.00)
SOF24 + LDV24	SOF12 + LDV12	0.92 (0.18 to 1.14)	–7.54 (–75.57 to 11.68)
Random Effect Model	Residual Deviance	25.34 vs. 26 data points	
	Deviance Information Criteria	152.687	
Fixed Effect Model	Residual Deviance	25.33 vs. 26 data points	
	Deviance Information Criteria	152.52	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference". Red shading indicates statistically significantly lower SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1a treatment-experienced patients, a total of 175 additional patients reported in three additional studies[51,75,85] were included in the NMA. Three new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.26 (95% CrI, 0.21 to 30).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, all emerging treatments (i.e., ELB12 [20 mg] + GRZ12 + RBV12, DCV12 + ASU12 + BEC12 + RBV12, and DCV12 + ASU12 + BEC12) significantly increased SVR.

Genotype 1b

The evidence network for SVR12 in treatment-experienced genotype 1b patients included 15 studies[42,44,45,48,56,60,69,72,73,84,86,95,102,104,110] and a total of 2,053 participants. Overall, 14 different treatment regimens were considered, providing for 12 direct treatment comparisons (based on 1 four-arm study and 6 two-arm studies), and 10 treatment estimates based on single-arm

studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.22 (95% CrI, 0.18 to 0.27).

The results of the random effects NMA model of selected treatments compared with PR48 and each other are presented in Table 17. Compared with PR48, all of the DAA treatment strategies significantly improved SVR in genotype 1b treatment-experienced patients (RR ranged from 3.01 to 4.40; RD ranged from 45.59% to 76.62%).

When the individual DAA treatment strategies were compared head to head:

- DCV24 + ASU24 + PR24 significantly improved SVR compared with SOF12 + LDV12, SOF24 + LDV24, SIM12 + PR24-48 RGT, SIM12 + PR48, SOF12 + PR12, and DCV24 + ASU24
- PAR/RIT12 + OMB12 + DAS12 significantly improved SVR compared with SIM12 + PR24-48 RGT, and SOF12 + LDV12

Table 17: SVR Genotype 1b Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD% (95% CrI)
SOF12 + LDV12	PR48	3.30 (2.02 to 4.38)	52.30 (23.26 to 68.96)
SOF24 + LDV24		3.97 (1.77 to 5.02)	69.04 (17.69 to 78.12)
SIM12 + PR24-48 RGT		3.01 (2.06 to 3.89)	45.59 (24.30 to 59.84)
SIM12 + PR48		3.60 (2.45 to 4.64)	59.20 (34.15 to 72.07)
PAR/RIT12 + OMB12 + DAS12		4.22 (3.43 to 5.14)	73.28 (58.60 to 79.10)
DCV24 + ASU24		3.43 (2.66 to 4.34)	55.01 (40.42 to 65.95)
DCV24 + ASU24 + PR24		4.40 (3.71 to 5.32)	76.62 (72.14 to 80.68)
SOF12 + PR12		3.26 (1.70 to 4.52)	51.25 (16.25 to 72.01)
SOF24 + LDV24	SOF12 + LDV12	1.18 (0.56 to 1.95)	14.12 (–32.81 to 45.57)
SIM12 + PR24-48 RGT		0.91 (0.60 to 1.54)	–6.78 (–34.08 to 25.50)
SIM12 + PR48		1.09 (0.73 to 1.81)	6.57 (–22.61 to 38.00)
PAR/RIT12 + OMB12 + DAS12		1.26 (1.00 to 2.09)	19.88 (0.21 to 50.13)
DCV24 + ASU24		1.03 (0.78 to 1.72)	2.41 (–19.17 to 33.80)
DCV24 + ASU24 + PR24		1.32 (1.08 to 2.17)	24.11 (7.73 to 53.34)
SOF12 + PR12		0.99 (0.50 to 1.73)	–0.69 (–40.48 to 36.47)
SIM12 + PR24-48 RGT	SOF24 + LDV24	0.76 (0.52 to 1.69)	–21.89 (–45.83 to 28.66)
SIM12 + PR48		0.91 (0.63 to 1.98)	–8.41 (–34.40 to 40.70)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.88 to 2.33)	4.16 (–12.00 to 54.48)
DCV24 + ASU24		0.86 (0.69 to 1.84)	–12.58 (–29.63 to 34.29)
DCV24 + ASU24 + PR24		1.08 (1.00 to 2.44)	7.30 (–0.24 to 58.41)
SOF12 + PR12		0.83 (0.43 to 1.86)	–15.23 (–53.11 to 36.96)
SIM12 + PR48	SIM12 + PR24-48 RGT	1.19 (0.81 to 1.76)	13.25 (–14.35 to 37.61)

Table 17: SVR Genotype 1b Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD% (95% CrI)**
PAR/RIT12 + OMB12 + DAS12		1.39 (1.16 to 1.94)	26.81 (12.74 to 45.11)
DCV24 + ASU24		1.13 (0.86 to 1.69)	9.21 (–10.77 to 32.90)
DCV24 + ASU24 + PR24		1.45 (1.20 to 2.13)	30.93 (16.45 to 52.64)
SOF12 + PR12		1.08 (0.57 to 1.70)	5.54 (–30.68 to 35.69)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	1.17 (0.96 to 1.65)	13.72 (–3.67 to 37.94)
DCV24 + ASU24		0.95 (0.74 to 1.39)	–3.87 (–23.57 to 22.60)
DCV24 + ASU24 + PR24		1.21 (1.06 to 1.74)	17.24 (5.58 to 42.02)
SOF12 + PR12		0.91 (0.48 to 1.40)	–7.54 (–44.74 to 24.30)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.81 (0.66 to 0.99)	–17.82 (–32.82 to –1.23)
DCV24 + ASU24 + PR24		1.03 (0.99 to 1.22)	2.88 (–0.94 to 18.17)
SOF12 + PR12		0.78 (0.41 to 1.03)	–21.21 (–56.86 to 2.56)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.28 (1.13 to 1.57)	21.47 (11.48 to 35.95)
SOF12 + PR12		0.95 (0.50 to 1.33)	–3.71 (–40.06 to 22.39)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.75 (0.40,0.95)	-25.13 (-59.80,-5.07)
Random Effect Model	Residual Deviance	32.73 vs. 36 data points	
	Deviance Information Criteria	185.675	
Fixed Effect Model	Residual Deviance	31.68 vs. 36 data points	
	Deviance Information Criteria	184.506	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Emerging Treatments

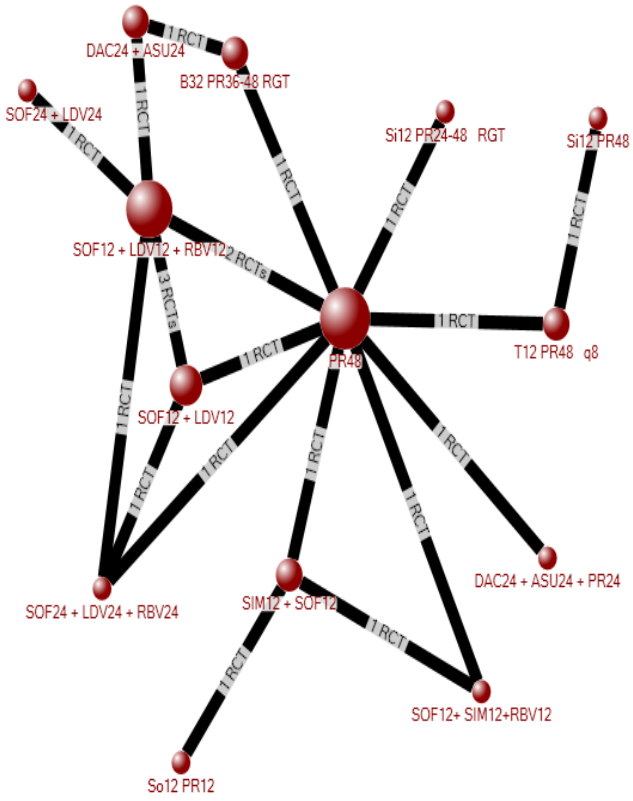
When emerging treatments were added to the network of genotype 1b treatment-experienced patients, a total of 97 additional patients reported in three additional studies[51,75,85] were included in the NMA. Three new treatments were added to the evidence network (ELB/GRZ12 + RBV12; DCV12 + ASU12 + BEC12 ± RBV12). The rate of SVR12 for the reference treatment PR48 was 0.21 (95% CrI, 0.17 to 0.24).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Relative to PR48, ELB12 (20 mg) + GRZ12 + RBV12 and DCV12 + ASU12 + BEC12 both significantly improved SVR (APPENDIX 12).

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 1 patients with cirrhosis included 15 studies[42,45,53,56,60,68,72,73,83,86,91,95,102,104,110] and a total of 850 participants (Figure 7). Overall, 14 different treatment regimens were considered, providing for 11 direct treatment comparisons (based on 1 three-arm study and 8 two-arm studies), and five treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.17 (95% CrI, 0.12 to 0.23).

FIGURE 7: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; DAC = daclatasvir; LDV = ledipasvir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 18. Compared with PR48, all of the DAA treatment strategies (i.e., SOF12 + LDV12, SOF24 + LDV24, DCV24 + ASU24 ± PR24, SIM12 + PR24-48 RGT, and SIM12 + SOF12), except SIM12 + PR48 and SOF12 + PR12, significantly improved SVR in genotype 1 treatment-experienced patients with cirrhosis.

When the individual DAA treatment strategies were compared head to head, only DCV24 + ASU24 + PR24 significantly improved SVR compared with SIM12 + PR48.

Table 18: SVR Genotype 1 Treatment-Experienced Patients with Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + LDV12	PR48	4.31 (2.45 to 6.85)	57.01 (26.60 to 75.98)
SOF24 + LDV24		4.50 (1.60 to 7.22)	61.40 (10.41 to 81.09)
SIM12 + PR24-48 RGT		3.56 (1.61 to 6.09)	44.10 (10.50 to 69.79)
SIM12 + PR48		2.71 (0.89 to 5.32)	29.31 (–1.87 to 63.33)
DCV24 + ASU24		5.06 (3.12 to 7.65)	69.98 (41.09 to 82.16)
DCV24 + ASU24 + PR24		5.35 (3.73 to 7.80)	74.30 (56.27 to 83.06)
SIM12 + SOF12		4.67 (1.80 to 7.16)	64.69 (13.84 to 82.30)
SOF12 + PR12		2.94 (0.32 to 6.24)	33.13 (–11.47 to 77.06)
SOF24 + LDV24	SOF12 + LDV12	1.04 (0.42 to 1.71)	3.15 (–43.40 to 35.62)
SIM12 + PR24-48 RGT		0.83 (0.36 to 1.58)	–12.43 (–52.74 to 27.79)
SIM12 + PR48		0.63 (0.20 to 1.37)	–27.28 (–65.97 to 19.02)
DCV24 + ASU24		1.15 (0.83 to 1.91)	11.37 (–13.72 to 41.46)
DCV24 + ASU24 + PR24		1.22 (0.90 to 2.10)	16.58 (–8.45 to 48.43)
SIM12 + SOF12		1.09 (0.41 to 1.92)	7.23 (–47.92 to 42.66)
SOF12 + PR12		0.70 (0.07 to 1.60)	–21.85 (–74.89 to 31.08)
SIM12 + PR24-48 RGT	SOF24 + LDV24	0.81 (0.35 to 2.28)	–15.37 (–57.10 to 39.04)
SIM12 + PR48		0.62 (0.19 to 1.93)	–29.81 (–71.12 to 29.87)
DCV24 + ASU24		1.10 (0.77 to 2.93)	7.65 (–19.69 to 55.20)
DCV24 + ASU24 + PR24		1.16 (0.85 to 3.27)	12.21 (–14.01 to 63.49)
SIM12 + SOF12		1.03 (0.41 to 2.85)	2.60 (–50.11 to 55.80)
SOF12 + PR12		0.68 (0.07 to 2.11)	–23.92 (–80.51 to 41.53)
SIM12 + PR48	SIM12 + PR24-48 RGT	0.77 (0.24 to 2.05)	–14.28 (–56.57 to 34.07)
DCV24 + ASU24		1.39 (0.84 to 3.14)	24.42 (–12.16 to 61.83)
DCV24 + ASU24 + PR24		1.48 (0.99 to 3.26)	29.41 (–0.59 to 64.19)
SIM12 + SOF12		1.29 (0.48 to 2.98)	18.40 (–36.64 to 59.17)
SOF12 + PR12		0.84 (0.09 to 2.38)	–9.82 (–65.71 to 47.02)

Table 18: SVR Genotype 1 Treatment-Experienced Patients with Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24	SIM12 + PR48	1.84 (0.95 to 5.80)	39.00 (–3.82 to 75.35)
DCV24 + ASU24 + PR24		1.95 (1.09 to 5.94)	44.06 (7.04 to 76.86)
SIM12 + SOF12		1.67 (0.59 to 5.41)	31.99 (–26.17 to 73.59)
SOF12 + PR12		1.06 (0.11 to 4.05)	2.83 (–56.57 to 61.48)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.05 (0.81 to 1.56)	4.11 (–17.22 to 33.18)
SIM12 + SOF12		0.95 (0.36 to 1.44)	–4.50 (–57.15 to 27.44)
SOF12 + PR12		0.59 (0.06 to 1.19)	–34.47 (–84.90 to 13.80)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.90 (0.34 to 1.19)	–8.72 (–60.58 to 14.92)
SOF12 + PR12		0.56 (0.06 to 1.08)	–39.75 (–86.66 to 6.91)
SOF12 + PR12	SIM12 + SOF12	0.65 (0.12 to 1.03)	–25.62 (–63.07 to 2.04)
Random Effect Model	Residual Deviance	29.34 vs. 31 data points	
	Deviance Information Criteria	145.523	
Fixed Effect Model	Residual Deviance	29.3 vs. 31 data points	
	Deviance Information Criteria	145.001	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-experienced patients with cirrhosis, a total of 124 additional patients reported in two additional studies[51,75] were included in the NMA. Three new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.16 (95% CrI, 0.11 to 0.22).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, all three emerging treatments (i.e., ELB12 [20 mg] + GRZ12 + RBV12, DCV12 + ASU12 + BEC12 + RBV12 and DCV12 + ASU12 + BEC12) significantly increased SVR (RR ranged from 5.65 to 5.94, RD ranged from 74.75% to 79.07%).

Sensitivity Analysis

Similar to the analysis of treatment-naive patients with cirrhosis, PAR/RIT12 + OMB12 + DAS12 + RBV12 could not be included in the base-case analysis of treatment-experienced patients with cirrhosis due to the lack of separately reported data on patient baseline characteristics in the TURQUOISE II study.[25] Hence, sensitivity analyses were conducted to

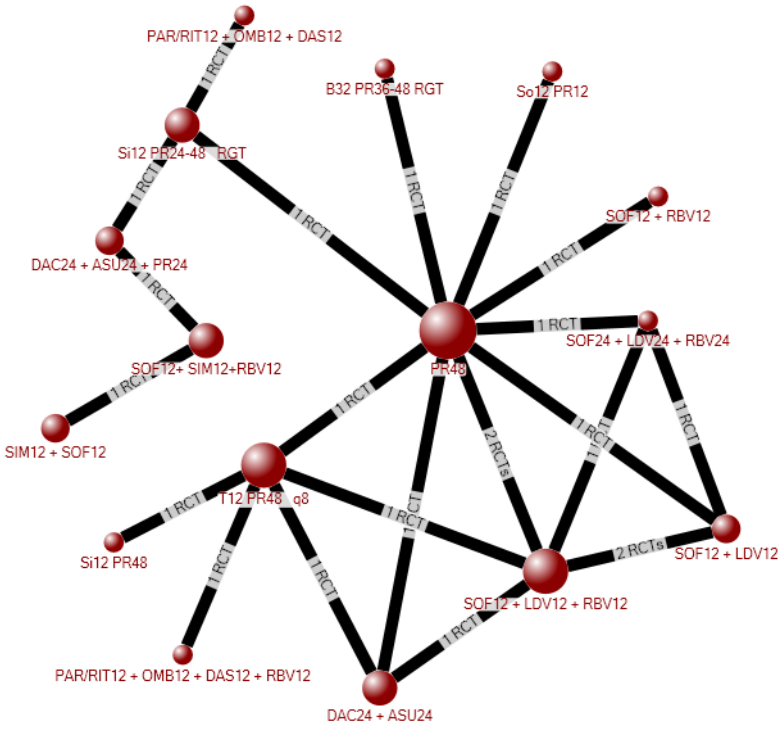
include the PAR/RIT12 + OMB12 + DAS12 + RBV12 treatment regimen from the TURQUOISE II study by applying the combined baseline characteristics to the treatment-naive and -experienced subgroups. Addition of this treatment to the network extended the treatment network by one treatment node and added one study. The rate of SVR12 for the reference treatment PR48 was 0.16 (95% CrI, 0.11 to 0.22).

Compared with PR48, PAR/RIT12 + OMB12 + DAS12 + RBV12 resulted in a significant increase in SVR (RR 5.49 [3.86 to 7.99], RD 74.22% [55.45 to 83.30]). There were no significant differences between PAR/RIT12 + OMB12 + DAS12 + RBV12 and SOF12 + LDV12 ± RBV12, SOF24 + LDV24, DCV24 + ASU24, DCV24 + ASU24 + PR24, SIM12 + SOF12, or SOF12 PR12.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 1 patients without cirrhosis included 16 studies[42,44,52,53,56,60,68,69,72,73,84,86,95,101,102,104,110] and a total of 3,038 participants (Figure 8). Overall, 16 different treatment regimens were considered, providing for 10 direct treatment comparisons (based on 1 three-arm study and 7 two-arm studies), and 11 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.26 (95% CrI, 0.22 to 0.29).

FIGURE 8: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 19. Compared with PR48, all of the DAA treatment strategies (i.e., SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12, DCV24 + ASU24 ± PR24, SIM12 + PR24-48 RGT, SIM12 + PR48, and SOF12 + PR12), except SIM12 + SOF12, significantly improved SVR in genotype 1 treatment-experienced patients without cirrhosis.

When the individual DAA treatment strategies were compared head to head:

- PAR/RIT12 + OMB12 + DAS12 ± RBV12 significantly improved SVR compared with SIM12 + PR24-48 RGT, SIM12 + PR48, SOF12 + PR12, DCV24 + ASU24, and SIM12 + SOF12.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 also significantly improved SVR compared with SOF12 + LDV12 and DCV24 + ASU24 + PR24.
- SOF12 + LDV12 and DCV24 + ASU24 + PR24 significantly improved SVR compared with SIM12 + PR24-48 RGT.

Table 19: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + SOF12	PR48	1.02 (0.05 to 3.64)	0.60 (–24.98 to 67.29)
SOF12 + LDV12		3.56 (2.99 to 4.15)	66.44 (53.86 to 72.96)
SIM12 + PR24-48 RGT		2.59 (1.76 to 3.21)	41.00 (19.63 to 53.91)
SIM12 + PR48		3.05 (2.15 to 3.72)	52.91 (30.36 to 64.51)
PAR/RIT12 + OMB12 + DAS12		3.75 (3.20 to 4.33)	71.27 (60.44 to 75.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.82 (3.35 to 4.39)	72.54 (67.86 to 76.16)
DCV24 + ASU24		3.07 (2.42 to 3.69)	53.54 (38.08 to 63.43)
DCV24 + ASU24 + PR24		3.37 (2.56 to 3.97)	61.54 (40.83 to 69.69)
SOF12 + PR12		3.10 (2.28 to 3.77)	54.19 (34.42 to 65.90)
SOF12 + LDV12	SIM12 + SOF12	3.45 (0.97 to 73.05)	64.56 (–2.44 to 92.89)
SIM12 + PR24-48 RGT		2.50 (0.70 to 49.78)	38.72 (–26.46 to 69.87)
SIM12 + PR48		2.95 (0.82 to 61.51)	50.73 (–15.70 to 82.01)
PAR/RIT12 + OMB12 + DAS12		3.68 (1.04 to 75.47)	70.08 (3.37 to 96.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.73 (1.06 to 77.60)	71.83 (5.26 to 97.18)
DCV24 + ASU24		2.99 (0.85 to 60.85)	51.66 (–13.62 to 82.04)
DCV24 + ASU24 + PR24		3.25 (0.94 to 65.47)	58.72 (–5.73 to 87.84)

Table 19: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + PR12		3.03 (0.84 to 64.10)	52.35 (–14.99 to 83.94)
SIM12 + PR24-48 RGT	SOF12 + LDV12	0.73 (0.50 to 0.90)	–25.07 (–46.10 to –8.23)
SIM12 + PR48		0.86 (0.62 to 1.03)	–13.23 (–34.85 to 2.51)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.93 to 1.21)	4.72 (–6.24 to 17.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.07 (1.00 to 1.23)	5.99 (0.19 to 18.20)
DCV24 + ASU24		0.86 (0.70 to 1.02)	–12.64 (–28.39 to 1.62)
DCV24 + ASU24 + PR24		0.95 (0.73 to 1.11)	–4.76 (–24.95 to 9.19)
SOF12 + PR12		0.87 (0.66 to 1.05)	–11.91 (–31.97 to 4.12)
SIM12 + PR48	SIM12 + PR24-48 RGT	1.17 (0.84 to 1.71)	11.68 (–11.44 to 34.45)
PAR/RIT12 + OMB12 + DAS12		1.45 (1.22 to 2.06)	29.69 (17.12 to 48.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.47 (1.23 to 2.15)	31.44 (18.41 to 52.06)
DCV24 + ASU24		1.18 (0.91 to 1.73)	12.30 (–6.52 to 34.23)
DCV24 + ASU24 + PR24		1.30 (1.10 to 1.67)	19.88 (7.39 to 33.66)
SOF12 + PR12		1.19 (0.87 to 1.78)	12.98 (–9.64 to 36.88)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	1.23 (1.04 to 1.69)	18.01 (3.77 to 39.56)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.10 to 1.71)	19.53 (8.91 to 40.27)
DCV24 + ASU24		1.01 (0.82 to 1.35)	0.64 (–15.45 to 20.53)
DCV24 + ASU24 + PR24		1.11 (0.85 to 1.51)	8.39 (–12.73 to 29.75)
SOF12 + PR12		1.02 (0.76 to 1.44)	1.22 (–20.50 to 25.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.97 to 1.13)	1.10 (–2.88 to 11.42)
DCV24 + ASU24		0.82 (0.66 to 0.95)	–17.30 (–32.81 to –4.49)
DCV24 + ASU24 + PR24		0.90 (0.70 to 1.01)	–9.26 (–28.29 to 0.47)
SOF12 + PR12		0.83 (0.63 to 0.97)	–16.73 (–36.27 to –2.37)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.81 (0.66 to 0.90)	–18.89 (–33.42 to –9.83)
DCV24 + ASU24 + PR24		0.89 (0.68 to 0.97)	–10.85 (–30.87 to –2.94)

Table 19: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + PR12		0.81 (0.62 to 0.93)	–18.28 (–37.32 to –6.71)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.10 (0.84 to 1.37)	7.82 (–12.99 to 24.14)
SOF12 + PR12		1.01 (0.75 to 1.31)	0.69 (–20.51 to 20.46)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.92 (0.69 to 1.22)	–7.06 (–27.48 to 15.24)
Random Effect Model	Residual Deviance	35.49 vs. 40 data points	
	Deviance Information Criteria	220.783	
Fixed Effect Model	Residual Deviance	35.38 vs. 40 data points	
	Deviance Information Criteria	220.182	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; vs. = versus.
Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference". Red shading indicates statistically significantly lower SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 1 treatment-experienced non-cirrhotic patients, a total of 148 additional patients reported in two additional studies[51,85] were added to the NMA. Two new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 was 0.25 (95% CrI, 0.21 to 0.28).

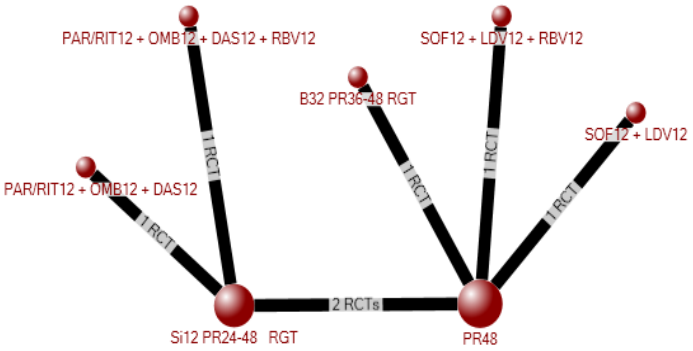
The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12. Compared with PR48, both emerging treatments (ELB12 [20 mg] + GRZ12 + RBV12 and DCV12 + ASU12 + BEC12) significantly increased SVR.

Treatment-Experienced Patients With Prior Relapse

All Patients

The evidence network for SVR12 in treatment-experienced patients with genotype 1 with prior relapse included seven studies[44,48,73,80,101,102,104] and a total of 741 participants (Figure 9). Overall, seven different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-arm studies) and five treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.30 (95% CrI, 0.25 to 0.36).

FIGURE 9: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS WITH PRIOR RELAPSE — EVIDENCE NETWORK



B = boceprevir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; Si = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 20. Compared with PR48, all of the DAA treatment strategies (i.e., SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12 and SIM12 + PR24-48 RGT) showed significant improvement in SVR (RR ranged from 2.49 to 3.13; RD ranged from 45.12% to 64.94%).

When the individual DAA treatment strategies were compared head to head, PAR/RIT12 + OMB12 + DAS12 ± RBV12 significantly improved SVR compared with SIM12 + PR24-48 RGT.

Table 20: SVR Genotype 1 Treatment-Experienced Patients With Prior Relapse — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR24-48 RGT	PR48	2.49 (1.87 to 3.10)	45.12 (27.76 to 56.18)
SOF12 + LDV12		2.91 (1.99 to 3.71)	58.98 (30.41 to 70.79)
PAR/RIT12 + OMB12 + DAS12		3.13 (2.43 to 3.83)	64.94 (46.06 to 72.34)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.08 (2.46 to 3.77)	63.33 (47.70 to 70.80)
SOF12 + LDV12	SIM12 + PR24-48 RGT	1.18 (0.79 to 1.54)	13.86 (–16.37 to 33.26)
PAR/RIT12 + OMB12 + DAS12		1.25 (1.05 to 1.55)	19.31 (3.73 to 33.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.24 (1.07 to 1.50)	17.93 (5.54 to 30.95)
PAR/RIT12 + OMB12 + DAS12	SOF12 + LDV12	1.06 (0.85 to 1.55)	5.31 (–14.30 to 34.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.04 (0.86 to 1.54)	3.81 (–13.40 to 32.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.98 (0.84 to 1.19)	–1.48 (–15.03 to 14.96)
Random Effect Model	Residual Deviance	13.67 vs. 14 data points	

Table 20: SVR Genotype 1 Treatment-Experienced Patients With Prior Relapse — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
	Deviance Information Criteria	84.089	
Fixed Effect Model	Residual Deviance	13.66 vs. 14 data points	
	Deviance Information Criteria	83.718	

CrI = credible interval; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus. Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Genotype 1a

The evidence network for SVR12 in treatment-experienced patients with genotype 1a infection and prior relapse included three studies[48,101,104] and a total of 227 participants. Overall, three different treatment regimens were considered, providing for a single direct treatment comparison (based on 1 two-arm study), and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.28 (95% CrI, 0.21 to 0.35).

The results of the random effects NMA model of selected treatments compared with PR48 and each other are presented in Table 21. Compared with PR48, both DAA treatment strategies (i.e., PAR/RIT12 + OMB12 + DAS12 + RBV12 and SIM12 + PR24-48 RGT) showed significant improvement in SVR (RR of 3.30 and 2.62, respectively). There were no statistically significant differences in SVR when the two DAA treatment strategies were compared against each other.

Table 21: SVR Genotype 1a Treatment-Experienced Patients With Prior Relapse — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR24-48 RGT	PR48	2.62 (1.85 to 3.60)	45.63 (26.75 to 60.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.30 (2.51 to 4.36)	64.94 (48.52 to 73.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR24-48 RGT	1.26 (0.98 to 1.66)	19.08 (–2.04 to 37.74)
Random Effect Model	Residual Deviance	5.624 vs. 6 data points	
	Deviance Information Criteria	33.823	
Fixed Effect Model	Residual Deviance	5.68 vs. 6 data points	
	Deviance Information Criteria	33.668	

CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Genotype 1b

The evidence network for SVR12 in treatment-experienced patients with genotype 1b infection and prior relapse included two studies[48,104] and a total of 231 participants. Overall, two different treatment regimens were considered, providing a single direct treatment comparison (based on 1 two-arm study), and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment PR48 was 0.43 (95% CrI, 0.36 to 0.51).

The results of the random effects NMA model of selected treatments compared with PR48 and each other are presented in Table 22. Compared with PR48, SIM12 + PR24-48 RGT showed significant improvement in SVR (RR of 1.97 and RD of 42.04%).

Table 22: SVR Genotype 1b Treatment-Experienced Patients With Prior Relapse — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR24-48 RGT	PR48	1.97 (1.53 to 2.45)	42.04 (25.00 to 53.45)
Random Effect Model	Residual Deviance	3.136 vs. 4 data points	
	Deviance Information Criteria	21.892	
Fixed Effect Model	Residual Deviance	3.018 vs. 4 data points	
	Deviance Information Criteria	21.653	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Patients With Cirrhosis

The analysis of SVR12 in treatment-experienced patients with cirrhosis and prior relapse included two studies[86,110] and a total of 58 participants. Overall, two different treatment regimens were considered, providing for a single direct treatment comparison (based on one two-arm study). The rate of SVR12 for the reference treatment PR48 was 0.27 (95% CrI, 0.11 to 0.49).

The results of the random effects NMA model of selected treatments compared with PR48 are presented in Table 23. Only one DAA treatment strategy was considered, and compared with PR48, SIM12 + PR24-48 RGT significantly improved SVR.

Table 23: SVR Genotype 1 Treatment-Experienced Patients With Cirrhosis, With Prior Relapse — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR24-48 RGT	PR48	2.68 (1.28 to 6.70)	45.81 (11.32 to 69.16)
Random Effect Model	Residual Deviance	2.015 vs. 2 data points	
	Deviance Information Criteria	11.069	
Fixed Effect Model	Residual Deviance	1.97 vs. 2 data points	
	Deviance Information Criteria	10.976	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with 'Treatment' compared with 'Reference'.

Patients Without Cirrhosis

The evidence diagram for SVR12 in treatment-experienced patients without cirrhosis and prior relapse included five studies[44,48,101,102,104] and a total of 569 participants. Overall, five different treatment regimens were considered, providing two direct treatment comparisons (based on 2 two-arm studies), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.37 (95% CrI, 0.31 to 0.42).

The results of the random effects NMA model of DAA treatments compared with PR48 and each other are presented in Table 22. Compared with PR48, all three of the treatment strategies (i.e., PAR/RIT12 + OMB12 + DAS12 ± RBV12 and SIM12 + PR24-48 RGT) significantly improved SVR (RR ranged from 2.12 to 2.56; RD ranged from 41.14% to 57.48%).

When the individual DAA treatment strategies were compared head to head:

- PAR/RIT12 + OMB12 + DAS12 ± RBV12 significantly improved SVR compared with SIM12 + PR24-48 RGT
- No significant difference in SVR was found when PAR/RIT12 + OMB12 + DAS12 + RBV12 was compared with PAR/RIT12 + OMB12 + DAS12

Table 24: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis, With Prior Relapse — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR24-48 RGT	PR48	2.12 (1.64 to 2.57)	41.14 (24.41 to 51.74)
PAR/RIT12 + OMB12 + DAS12		2.61 (2.16 to 3.09)	59.38 (45.37 to 66.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.56 (2.09 to 3.04)	57.48 (42.59 to 64.71)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR24-48 RGT	1.23 (1.02 to 1.56)	17.99 (1.79 to 34.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.20 (1.06 to 1.45)	15.87 (5.08 to 28.67)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.98 (0.83 to 1.14)	–1.93 (–16.13 to 11.93)

Table 24: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis, With Prior Relapse — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
Random Effect Model	Residual Deviance	8.881 vs. 10 data points	
	Deviance Information Criteria	59.882	
Fixed Effect Model	Residual Deviance	8.843 vs. 10 data points	
	Deviance Information Criteria	59.796	

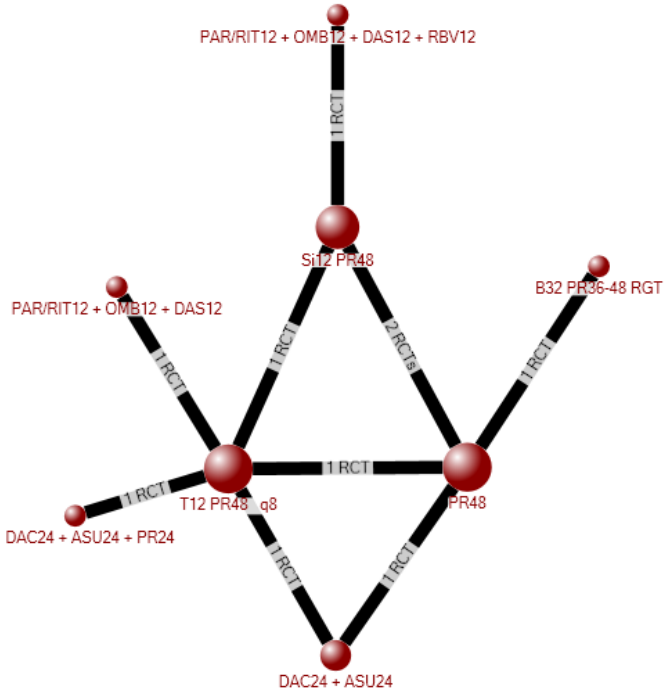
CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”.

Treatment-Experienced Patients With Prior Partial Response

All Patients

The evidence network for SVR12 in treatment-experienced genotype 1 patients with prior partial response included 10 studies[44,48,56,60,72,86,101,102,110,111] and a total of 840 participants (Figure 10). Overall, eight different treatment regimens were considered, providing for four direct treatment comparisons (based on 4 two-arm studies), and six treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.13 (95% CrI, 0.08 to 0.19).

FIGURE 10: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS WITH PRIOR PARTIAL RESPONSE — EVIDENCE NETWORK



ASU = asunaprevir; B = boceprevir; DAC = daclatasvir; DAS = dasabuvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RCT = randomized controlled trial; RGT = response-guided therapy; RIT = ritonavir; Si = simeprevir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of DAA treatments compared with PR48 and each other are presented in Table 25. Compared with PR48, all treatments (i.e., PAR/RIT12 + OMB12 + DAS12 ± RBV12, DCV24 + ASU24 ± PR24, and SIM12 + PR48) showed significant improvement in SVR.

When the individual DAA treatment strategies were compared head to head, PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SIM12 + PR48

Table 25: SVR Genotype 1 Treatment-Experienced Patients With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR48	PR48	4.25 (1.85,7.08)	42.14 (10.22,59.45)
PAR/RIT12 + OMB12 + DAS12		6.52 (2.35 to 10.53)	73.36 (16.24 to 86.02)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.19 (4.05 to 11.41)	80.99 (38.60 to 88.41)
DCV24 + ASU24		5.43 (2.59 to 8.80)	57.90 (19.75 to 73.41)

Table 25: SVR Genotype 1 Treatment-Experienced Patients With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24 + PR24		6.17 (1.72 to 9.90)	68.74 (8.30 to 81.31)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	1.53 (0.72 to 2.81)	29.92 (–11.51 to 54.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.67 (1.23 to 3.10)	37.29 (11.68 to 58.72)
DCV24 + ASU24		1.27 (0.74 to 2.47)	15.17 (–13.77 to 42.10)
DCV24 + ASU24 + PR24		1.45 (0.56 to 2.45)	25.31 (–17.20 to 46.68)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.08 (0.76 to 2.56)	6.76 (–18.90 to 49.44)
DCV24 + ASU24		0.83 (0.50 to 1.83)	–14.82 (–40.86 to 26.51)
DCV24 + ASU24 + PR24		0.95 (0.38 to 1.72)	–4.66 (–43.23 to 28.59)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.76 (0.42 to 1.16)	–22.14 (–50.36 to 8.75)
DCV24 + ASU24 + PR24		0.88 (0.30 to 1.17)	–11.51 (–56.09 to 10.78)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.14 (0.42 to 1.77)	10.16 (–33.44 to 33.25)
Random Effect Model	Residual Deviance	20.56 vs. 20 data points	
	Deviance Information Criteria	113.704	
Fixed Effect Model	Residual Deviance	20.84 vs. 20 data points	
	Deviance Information Criteria	113.016	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Genotype 1a

The evidence network for SVR12 in treatment-experienced genotype 1a patients with prior partial response included four studies[48,86,101,110] and a total of 202 participants. Overall, four different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-arm studies), and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.21 (95% CrI, 0.08 to 0.44).

The results of the random effects NMA model of DAA treatments compared with PR48 and each other are presented in Table 26. Compared with PR48, PAR/RIT12 + OMB12 + DAS12 + RBV12 was the only treatment to significantly increase SVR and, in particular, SIM12 + PR48 did not significantly improve SVR.

When the individual DAA treatment strategies were compared head to head, PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SIM12 + PR48.

Table 26: SVR Genotype 1a Treatment-Experienced Patients With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR48	PR48	1.82 (0.58 to 5.78)	17.89 (–14.11 to 50.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		4.14 (1.97 to 11.79)	69.35 (37.44 to 86.62)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR48	2.24 (1.30 to 5.65)	49.92 (19.31 to 75.55)
Random Effect Model	Residual Deviance	7.191 vs. 8 data points	
	Deviance Information Criteria	42.855	
Fixed Effect Model	Residual Deviance	7.265 vs. 8 data points	
	Deviance Information Criteria	42.87	

CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Genotype 1b

The evidence network for SVR12 in treatment-experienced genotype 1b patients with prior partial response included three studies[48,86,110] and a total of 209 participants. Overall, three different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-arm studies), and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment PR48 was 0.18 (95% CrI, 0.04 to 0.42).

The results of the random effects NMA model of DAA treatments compared with PR48 and each other are presented in Table 27. Compared with PR48, SIM12 + PR48 significantly improved SVR (RR 3.66 and RD 51.35%).

Table 27: SVR Genotype 1b Treatment-Experienced Patients With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR48	PR48	3.66 (1.13 to 17.58)	51.35 (3.80 to 78.65)
Random Effect Model	Residual Deviance	5.379 vs. 6 data points	
	Deviance Information Criteria	30.879	
Fixed Effect Model	Residual Deviance	5.496 vs. 6 data points	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 1 patients with cirrhosis and prior partial response included two studies[86,110] and a total of 77 participants. Overall, 3 different treatment regimens were considered, providing for two direct comparisons (based on two two-arm studies), and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.22 (95% CrI 0.03 to 0.62).

The results of the random effects NMA model of DAA treatments compared to PR48 are presented in Table 28. Compared with PR48, none of the treatments (in particular, SIM12 + PR48) had a significant effect on SVR.

Table 28: SVR Genotype 1 Treatment-Experienced Patients With Cirrhosis, With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR48	PR48	1.57 (0.26 to 10.81)	11.65 (–35.07 to 56.13)
Random Effect Model	Residual Deviance	3.785 vs. 4 data points	
	Deviance Information Criteria	20.106	
Fixed Effect Model	Residual Deviance	3.758 vs. 4 data points	
	Deviance Information Criteria	20.045	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 1 patients without cirrhosis and prior partial response included six studies[44,48,86,101,102,110] and a total of 444 participants. Overall, four different treatment regimens were considered, providing for three direct treatment comparisons (based on 3 two-arm studies), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.16 (95% CrI, 0.09 to 0.26).

The results of the random effects NMA model of DAA treatments compared to PR48 are presented in Table 29. Compared to PR48, both PAR/RIT12 + OMB12 + DAS12 and

PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly increased SVR, but SIM12 + PR48 was not significantly different.

When the individual DAA treatment strategies were compared head to head, none of the treatments were significantly different from one another.

Table 29: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis, With Prior Partial Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR48	PR48	3.06 (0.32 to 6.67)	34.15 (–9.72 to 67.13)
PAR/RIT12 + OMB12 + DAS12		5.54 (2.54 to 10.25)	74.51 (23.59 to 86.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.54 (1.67 to 10.14)	75.68 (9.60 to 86.83)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	1.76 (0.93 to 15.18)	38.12 (–4.31 to 83.25)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.76 (0.98 to 11.86)	37.43 (–0.82 to 76.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.34 to 1.74)	0.94 (–51.39 to 35.10)
Random Effect Model	Residual Deviance	12.44 vs. 12 data points	
	Deviance Information Criteria	64.345	
Fixed Effect Model	Residual Deviance	12.82 vs. 12 data points	
	Deviance Information Criteria	64.298	

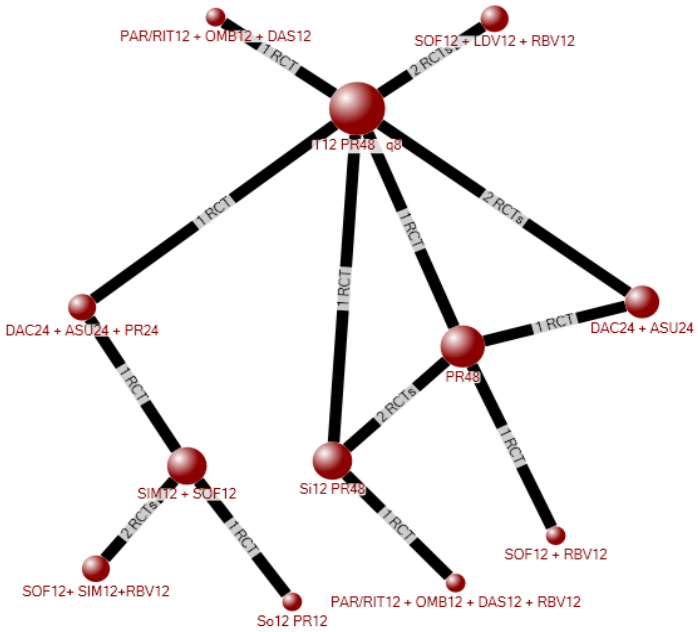
CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Treatment-Experienced Patients With Prior Null Response

All Patients

The evidence network for SVR12 in treatment-experienced genotype 1 patients and prior null response included 13 studies[44,48,52,53,56,60,68,69,72,83,86,101,110,111] and a total of 1,403 participants (Figure 11). Overall, 12 different treatment regimens were considered, providing for six direct treatment comparisons (based on 6 two-arm studies), and 11 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 10). The rate of SVR12 for the reference treatment PR48 was 0.18 (95% CrI, 0.11 to 0.25).

FIGURE 11: SVR GENOTYPE 1 TREATMENT-EXPERIENCED PATIENTS WITH PRIOR NULL RESPONSE — EVIDENCE NETWORK



ASU = asunaprevir; DAC = daclatasvir; DAS = dasabuvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RCT = randomized controlled trial; RIT = ritonavir; SIM and Si = simeprevir; SOF and So = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

The results of the random effects NMA model of DAA treatments compared with PR48 are presented in Table 30. Compared with PR48, PAR/RIT12 + OMB12 + DAS12 ± RBV12 and DCV24 + ASU24 ± PR24 significantly improved SVR, whereas SOF12 + PR12, SIM12 + PR48, and SIM12 + SOF12 were not significantly different from PR48.

When the individual DAA treatment strategies were compared head to head:

- PAR/RIT12 + OMB12 + DAS12 + RBV12 significantly improved SVR compared with SOF12 + PR12 and SIM12 + PR48.
- DCV24 + ASU24 ± PR24 significantly improved SVR compared with SOF12 + PR12.

Table 30: SVR Genotype 1 Treatment-Experienced Patients With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + SOF12	PR48	1.21 (0.19 to 3.58)	3.59 (–14.65 to 46.12)
SOF12 + PR12		0.56 (0.06 to 2.83)	–7.47 (–18.99 to 31.75)
SIM12 + PR48		1.67 (0.46 to 3.10)	12.28 (–9.33 to 32.19)
PAR/RIT12 + OMB12 + DAS12		4.33 (1.09 to 6.86)	63.43 (1.34 to 80.38)
PAR/RIT12 + OMB12 + DAS12 + RBV12		4.51 (1.33 to 7.00)	67.00 (5.28 to 80.14)
DCV24 + ASU24		3.67 (1.32 to 5.78)	49.97 (5.00 to 67.75)
DCV24 + ASU24 + PR24		4.16 (1.12 to 6.57)	60.54 (1.81 to 77.44)
SOF12 + PR12	SIM12 + SOF12	0.47 (0.09 to 2.84)	–9.60 (–41.69 to 18.99)

Table 30: SVR Genotype 1 Treatment-Experienced Patients With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
SIM12 + PR48		1.31 (0.31 to 8.75)	6.03 (–35.09 to 35.56)
PAR/RIT12 + OMB12 + DAS12		3.35 (0.83 to 21.80)	52.48 (–5.17 to 84.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.53 (0.98 to 22.23)	55.82 (–0.60 to 86.09)
DCV24 + ASU24		2.91 (0.86 to 18.25)	40.34 (–5.84 to 71.79)
DCV24 + ASU24 + PR24		3.20 (0.94 to 18.16)	48.29 (–1.57 to 80.56)
SIM12 + PR48	SOF12 + PR12	2.83 (0.38 to 26.96)	17.20 (–23.28 to 42.28)
PAR/RIT12 + OMB12 + DAS12		7.31 (0.99 to 70.43)	66.17 (–0.18 to 91.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.72 (1.15 to 72.18)	69.74 (3.99 to 91.55)
DCV24 + ASU24		6.36 (1.00 to 59.63)	53.61 (–0.01 to 78.48)
DCV24 + ASU24 + PR24		6.93 (1.05 to 63.00)	62.49 (1.21 to 88.76)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	2.51 (0.80 to 7.79)	49.02 (–4.90 to 73.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.62 (1.17 to 7.01)	51.94 (3.63 to 70.70)
DCV24 + ASU24		2.15 (0.88 to 6.74)	36.17 (–3.55 to 60.91)
DCV24 + ASU24 + PR24		2.43 (0.77 to 7.19)	46.77 (–6.09 to 68.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.03 (0.38 to 3.23)	2.29 (–44.71 to 51.99)
DCV24 + ASU24		0.85 (0.37 to 2.66)	–12.33 (–48.41 to 35.61)
DCV24 + ASU24 + PR24		0.98 (0.32 to 2.78)	–2.10 (–50.23 to 41.58)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.82 (0.34 to 2.29)	–15.21 (–51.17 to 32.92)
DCV24 + ASU24 + PR24		0.95 (0.30 to 2.36)	–4.16 (–54.12 to 37.81)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.14 (0.37 to 2.44)	10.16 (–37.13 to 40.77)
Random Effect Model	Residual Deviance	35.61 vs. 34 data points	
	Deviance Information Criteria	188.092	
Fixed Effect Model	Residual Deviance	32.86 vs. 34 data points	
	Deviance Information Criteria	182.925	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Genotype 1a

The evidence network for SVR12 in treatment-experienced genotype 1a patients and prior null response included five studies[25,48,86,101,110] and a total of 478 participants. Overall, four different treatment regimens were considered, providing for three direct treatment comparisons (based on 3 two-arm studies), and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.14 (95% CrI, 0.04 to 0.34).

The results of the random effects NMA model of DAA treatments compared with PR48 are presented in Table 31. Compared with PR48, both PAR/RIT12 + OMB12 + DAS12 + RBV12 and PAR/RIT24 + OMB24 + DAS24 + RBV24 significantly improved SVR, whereas SIM12 + PR48 was not significantly different from PR48.

When the individual DAA treatment strategies were compared head to head:

- Both PAR/RIT12 + OMB12 + DAS12 + RBV12 and PAR/RIT24 + OMB24 + DAS24 + RBV24 significantly improved SVR compared with SIM12 + PR48.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 and PAR/RIT24 + OMB24 + DAS24 + RBV24 were not significantly different from one another.

Table 31: SVR Genotype 1a Treatment-Experienced Patients With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48	5.51 (1.70 to 18.80)	69.67 (7.37 to 86.70)
PAR/RIT24 + OMB24 + DAS24 + RBV24		5.94 (1.73 to 20.49)	75.79 (7.26 to 90.80)
SIM12 + PR48		1.85 (0.33 to 7.33)	12.18 (–12.43 to 43.91)
PAR/RIT24 + OMB24 + DAS24 + RBV24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.06 (0.57 to 2.14)	4.85 (–20.49 to 34.88)
SIM12 + PR48		0.34 (0.08 to 0.91)	–55.31 (–76.02 to –1.88)
SIM12 + PR48	PAR/RIT24 + OMB24 + DAS24 + RBV24	0.32 (0.07 to 0.92)	–61.58 (–83.29 to –1.49)
Random Effect Model	Residual Deviance	12.13 vs. 10 data points	
	Deviance Information Criteria	60.688	
Fixed Effect Model	Residual Deviance	13.75 vs. 10 data points	
	Deviance Information Criteria	61.415	

CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Genotype 1b

The evidence network for SVR12 in treatment-experienced genotype 1b patients and prior null response included four studies[48,69,86,110] and a total of 330 participants. Overall, four different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-arm studies), and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.08 (95% CrI, 0.01 to 0.23).

The results of the random effects NMA model of DAA treatments compared with PR48 are presented in Table 32. Compared with PR48, SIM12 + PR48 and DCV24 + ASU24 did not significantly improve SVR.

No significant improvements in SVR were seen when the individual DAA treatment strategies were compared head to head.

Table 32: SVR Genotype 1b Treatment-Experienced Patients With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR48	PR48	3.22 (0.73 to 18.18)	16.90 (–4.31 to 45.01)
DCV24 + ASU24		4.29 (0.80 to 25.79)	25.51 (–2.44 to 65.54)
DCV24 + ASU24	SIM12 + PR48	1.33 (0.53 to 2.86)	8.10 (–12.37 to 36.78)
Random Effect Model	Residual Deviance	7.807 vs. 8 data points	
	Deviance Information Criteria	46.636	
Fixed Effect Model	Residual Deviance	7.691 vs 8. data points	
	Deviance Information Criteria	46.305	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 1 patients with cirrhosis and prior null response included five studies[52,68,83,86,110] and a total of 213 participants. Overall, four different treatment regimens were considered, providing for four direct treatment comparisons (based on 4 two-arm studies), and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment PR48 was 0.17 (95% CrI, 0.04 to 0.44).

The results of the random effects NMA model of DAA treatments compared with PR48 are presented in Table 33. Compared with PR48, none of the treatments (i.e., SIM12 + PR48, SIM12 + SOF12, and SOF12 + PR12) had a significant effect on SVR.

When the individual DAA treatment strategies were compared head to head, SIM12 + SOF12 was significantly better than SIM12 + PR48.

Table 33: SVR Genotype 1 Treatment-Experienced Patients with Cirrhosis, With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + PR48	PR48	0.58 (0.10 to 2.47)	–6.56 (–33.68 to 13.51)
SIM12 + SOF12		3.36 (0.70 to 12.86)	42.84 (–6.07 to 80.39)
SOF12 + PR12		1.64 (0.12 to 7.97)	9.71 (–25.84 to 69.83)
SIM12 + SOF12	SIM12 + PR48	5.65 (1.60 to 24.60)	49.82 (5.26 to 85.54)
SOF12 + PR12		2.68 (0.28 to 15.78)	16.25 (–10.12 to 76.31)

Table 33: SVR Genotype 1 Treatment-Experienced Patients with Cirrhosis, With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + PR12	SIM12 + SOF12	0.49 (0.08 to 1.13)	–25.54 (–60.87 to 5.99)
Random Effect Model	Residual Deviance	29.34 vs. 31 data points	
	Deviance Information Criteria	145.523	
Fixed Effect Model	Residual Deviance	29.3 vs. 31 data points	
	Deviance Information Criteria	145.001	

PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced patients without cirrhosis and prior null response included five studies[44,48,68,69,101] and a total of 735 participants. Overall, seven different treatment regimens were considered, providing for four direct treatment comparisons (based on 4 two-arm studies), and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment PR48 was 0.08 (95% CrI, 0.03 to 0.17).

The results of the random effects NMA model of DAA treatments compared with PR48 are presented in Table 34. Compared with PR48, PAR/RIT12 + OMB12 + DAS12 ± RBV12 significantly improved SVR, whereas SIM12 + PR48, DCV24 + ASU24 ± PR24 and SIM12 + SOF12 were not significantly different from PR48.

When the individual DAA treatment strategies were compared head to head, PAR/RIT12 + OMB12 + DAS12 ± RBV12 and DCV24 + ASU24 + PR24 were significantly better than SIM12 + PR48.

Table 34: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis, With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR48	PR48	1.07 (0.10 to 3.70)	0.49 (–8.59 to 19.29)
PAR/RIT12 + OMB12 + DAS12		8.00 (1.26 to 21.07)	61.52 (1.38 to 88.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.39 (1.01 to 18.58)	56.86 (0.07 to 81.97)
DCV24 + ASU24		2.10 (0.18 to 7.77)	8.59 (–6.70 to 45.95)
DCV24 + ASU24 + PR24		6.58 (0.63 to 18.80)	48.92 (–1.96 to 86.26)
SIM12 + SOF12		4.70 (0.33 to 14.66)	31.22 (–4.18 to 78.07)

Table 34: SVR Genotype 1 Treatment-Experienced Patients Without Cirrhosis, With Prior Null Response — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR48	7.09 (2.05 to 65.26)	58.30 (4.14 to 86.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.60 (1.94 to 48.81)	54.23 (3.00 to 77.63)
DCV24 + ASU24		1.87 (0.35 to 16.10)	6.98 (–6.55 to 39.69)
DCV24 + ASU24 + PR24		5.73 (1.68 to 38.65)	46.39 (1.53 to 82.29)
SIM12 + SOF12		4.15 (0.90 to 22.96)	29.51 (–0.29 to 71.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.93 (0.17 to 3.96)	–4.62 (–55.34 to 42.85)
DCV24 + ASU24		0.27 (0.03 to 1.32)	–47.08 (–82.66 to 3.93)
DCV24 + ASU24 + PR24		0.86 (0.09 to 4.13)	–8.76 (–66.13 to 47.29)
SIM12 + SOF12		0.63 (0.05 to 2.64)	–22.17 (–74.31 to 30.18)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.29 (0.04 to 1.46)	–42.50 (–72.89 to 5.80)
DCV24 + ASU24 + PR24		0.92 (0.12 to 4.86)	–4.56 (–55.38 to 49.18)
SIM12 + SOF12		0.68 (0.06 to 2.89)	–17.87 (–64.22 to 30.94)
DCV24 + ASU24 + PR24	DCV24 + ASU24	2.98 (0.39 to 29.47)	35.82 (–14.19 to 78.67)
SIM12 + SOF12		2.19 (0.21 to 18.31)	19.65 (–21.88 to 66.02)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.76 (0.07 to 4.13)	–11.86 (–65.99 to 40.84)
Random Effect Model	Residual Deviance	24.31 vs. 23 data points	
	Deviance Information Criteria	124.546	
Fixed Effect Model	Residual Deviance	25.71 vs. 23 data points	
	Deviance Information Criteria	124.841	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with 'Treatment' compared with 'Reference'.

Subgroup Analyses — Treatment-Naive Patients

Viral Load at Baseline > 800,000 or 1,000,000 IU/mL

Studies that reported SVR results according to baseline viral load used one of two thresholds: > 800,000 IU/mL or > 1,000,000 IU/mL. Based on clinical expert input, it was considered appropriate to pool results across studies regardless of the threshold used. The evidence network for SVR12 in treatment-naive genotype 1 patients with viral load at baseline > 800,000 or 1,000,000 IU/mL included 13 studies[43,49,55,58,60,65,71-74,81,93,94] and a total of 3,113 patients. Overall, the 14 treatment regimens considered provided for 14 direct

treatment comparisons (based on 1 four-arm study, 1 three-arm study, and 5 two-arm studies), and six treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.36 (95% CrI, 0.31 to 0.4).

The results of the random effects NMA model of treatments compared with PR48 are presented in Table 35. In particular, compared with PR48, SOF24 + RBV24, SOF12 + LDV12, SOF8 + LDV8, SIM12 + PR24-48 RGT, PAR/RIT12 + OMB12 + DAS12 + RBV12 and DCV24 + ASU24) significantly improved SVR, whereas SOF12 + PR12 was not significantly different from PR48.

When the individual treatment strategies were compared head to head:

- SOF12 + LDV12, SOF8 + LDV8, PAR/RIT12 + OMB12 + DAS12 + RBV12, and DCV24 + ASU24 were significantly better than SOF12 + PR12.

Table 35: SVR Genotype 1 Treatment-Naive Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.86 (1.33 to 2.30)	31.25 (12.22 to 44.45)
SOF12 + LDV12		2.40 (1.89 to 2.84)	51.42 (33.37 to 60.33)
SOF24 + LDV24		1.96 (0.60 to 2.76)	35.05 (–14.39 to 60.79)
SOF8 + LDV8		2.23 (1.36 to 2.79)	45.33 (13.02 to 59.94)
SOF8 + LDV8 + RBV8		2.18 (1.26 to 2.75)	43.47 (9.55 to 58.75)
SOF12 + LDV12 + RBV12		2.20 (1.11 to 2.79)	44.25 (4.00 to 60.53)
SOF24 + LDV24 + RBV24		2.28 (0.85 to 2.88)	47.00 (–5.37 to 63.41)
SIM12 + PR24-48 RGT		2.04 (1.70 to 2.41)	37.94 (26.71 to 46.92)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.38 (1.51 to 2.89)	50.83 (18.60 to 62.50)
DCV24 + ASU24		2.33 (2.01 to 2.71)	48.66 (39.65 to 55.82)
SOF12 + PR12		0.53 (0.04 to 2.16)	–16.91 (–35.76 to 42.17)
SOF12 + LDV12	SOF24 + RBV24	1.29 (1.08 to 1.66)	19.68 (5.85 to 34.25)
SOF24 + LDV24		1.06 (0.33 to 1.60)	3.94 (–45.15 to 34.33)
SOF8 + LDV8		1.20 (0.78 to 1.57)	13.90 (–14.82 to 31.59)
SOF8 + LDV8 + RBV8		1.17 (0.73 to 1.55)	11.92 (–17.87 to 30.50)
SOF12 + LDV12 + RBV12		1.18 (0.63 to 1.62)	12.26 (–24.94 to 34.25)
SOF24 + LDV24 + RBV24		1.22 (0.47 to 1.72)	15.25 (–36.12 to 38.98)

Table 35: SVR Genotype 1 Treatment-Naive Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SIM12 + PR24-48 RGT		1.10 (0.87 to 1.55)	6.64 (–9.73 to 27.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.27 (0.86 to 1.69)	18.63 (–9.61 to 36.66)
DCV24 + ASU24		1.26 (1.03 to 1.75)	17.32 (2.34 to 37.15)
SOF12 + PR12		0.29 (0.02 to 1.17)	–46.64 (–71.10 to 11.28)
SOF24 + LDV24	SOF12 + LDV12	0.82 (0.26 to 1.15)	–15.46 (–62.99 to 12.15)
SOF8 + LDV8		0.94 (0.64 to 1.06)	–5.54 (–29.10 to 5.21)
SOF8 + LDV8 + RBV8		0.92 (0.60 to 1.05)	–7.36 (–32.06 to 3.82)
SOF12 + LDV12 + RBV12		0.92 (0.50 to 1.11)	–6.65 (–42.23 to 9.11)
SOF24 + LDV24 + RBV24		0.96 (0.37 to 1.21)	–3.84 (–53.37 to 15.78)
SIM12 + PR24-48 RGT		0.85 (0.72 to 1.08)	–13.53 (–26.24 to 5.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.70 to 1.15)	–0.55 (–24.52 to 12.01)
DCV24 + ASU24		0.97 (0.85 to 1.23)	–3.01 (–14.01 to 16.16)
SOF12 + PR12		0.22 (0.02 to 0.89)	–66.58 (–87.41 to –9.61)
SOF8 + LDV8	SOF24 + LDV24	1.13 (0.70 to 3.47)	9.46 (–25.18 to 58.65)
SOF8 + LDV8 + RBV8		1.11 (0.65 to 3.44)	7.63 (–29.64 to 57.19)
SOF12 + LDV12 + RBV12		1.11 (0.66 to 2.99)	7.61 (–27.29 to 49.16)
SOF24 + LDV24 + RBV24		1.12 (0.62 to 2.93)	8.77 (–26.46 to 53.79)
SIM12 + PR24-48 RGT		1.04 (0.73 to 3.46)	2.87 (–25.35 to 52.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (0.77 to 3.77)	13.99 (–19.76 to 64.20)
DCV24 + ASU24		1.19 (0.86 to 4.03)	13.47 (–13.60 to 64.57)
SOF12 + PR12		0.29 (0.05 to 0.83)	–43.09 (–70.34 to –11.97)
SOF8 + LDV8 + RBV8	SOF8 + LDV8	0.98 (0.74 to 1.23)	–1.79 (–19.37 to 13.78)
SOF12 + LDV12 + RBV12		0.99 (0.53 to 1.51)	–1.02 (–38.51 to 28.28)
SOF24 + LDV24 + RBV24		1.02 (0.40 to 1.65)	1.80 (–48.98 to 34.74)
SIM12 + PR24-48 RGT		0.91 (0.73 to 1.51)	–7.36 (–24.56 to

Table 35: SVR Genotype 1 Treatment-Naive Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
			25.56)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.05 (0.89 to 1.35)	4.44 (–8.14 to 20.52)
DCV24 + ASU24		1.04 (0.86 to 1.71)	3.03 (–12.66 to 35.47)
SOF12 + PR12		0.24 (0.02 to 0.98)	–58.43 (–86.13 to –1.58)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.55 to 1.58)	0.70 (–36.45 to 30.25)
SOF24 + LDV24 + RBV24		1.04 (0.42 to 1.75)	3.24 (–45.72 to 37.53)
SIM12 + PR24-48 RGT		0.93 (0.74 to 1.62)	–5.65 (–23.62 to 29.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.08 (0.83 to 1.55)	6.43 (–12.87 to 28.89)
DCV24 + ASU24		1.06 (0.87 to 1.84)	4.84 (–11.70 to 39.22)
SOF12 + PR12		0.25 (0.02 to 1.02)	–56.23 (–85.09 to 1.14)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.47 to 1.90)	1.81 (–39.78 to 40.89)
SIM12 + PR24-48 RGT		0.92 (0.73 to 1.84)	–6.19 (–25.46 to 34.32)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.07 (0.72 to 2.03)	5.44 (–22.89 to 44.69)
DCV24 + ASU24		1.05 (0.86 to 2.10)	4.20 (–13.34 to 44.76)
SOF12 + PR12		0.25 (0.02 to 0.94)	–55.15 (–83.64 to –4.48)
SIM12 + PR24-48 RGT	SOF24 + LDV24 + RBV24	0.89 (0.70 to 2.42)	–9.23 (–28.62 to 44.09)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.68 to 2.68)	2.62 (–28.67 to 54.56)
DCV24 + ASU24		1.02 (0.83 to 2.78)	1.57 (–16.85 to 54.72)
SOF12 + PR12		0.25 (0.03 to 0.93)	–55.86 (–88.32 to –4.52)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR24-48 RGT	1.17 (0.73 to 1.42)	12.62 (–20.19 to 27.69)
DCV24 + ASU24		1.14 (0.98 to 1.36)	10.69 (–1.27 to 22.95)
SOF12 + PR12		0.26 (0.02 to 1.08)	–54.47 (–75.45 to 5.73)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.97 (0.83 to 1.55)	–2.30 (–15.77 to 30.24)
SOF12 + PR12		0.23 (0.02 to 0.91)	–63.74 (–90.20 to –6.39)
SOF12 + PR12	DCV24 + ASU24	0.23 (0.02 to 0.93)	–65.40 (–85.63 to –5.60)

Table 35: SVR Genotype 1 Treatment-Naive Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
Random Effect Model	Residual Deviance	27.1 vs. 29 data points	
	Deviance Information Criteria	167.03	
Fixed Effect Model	Residual Deviance	26.28 vs. 29 data points	
	Deviance Information Criteria	165.097	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with 'Treatment' compared with 'Reference'. Red shading indicates statistically significantly lower SVR rate with 'Treatment' compared with 'Reference'.

Viral Load at Baseline < 800,000 or 1,000,000 IU/mL

The evidence network for SVR12 in treatment-naive genotype 1 patients with viral load at baseline < 800,000 or 1,000,000 IU/mL included 13 studies[43,49,55,58,60,65,71-74,81,93,94] and a total of 813 patients. Overall, the 14 treatment regimens considered provided for 14 direct treatment comparisons (based on 1 four-arm study, 1 three-arm study, and 5 two-arm studies), and six treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.80 (95% CrI, 0.72 to 0.88).

The results of the random effects NMA model of treatments compared with PR48 are presented in Table 36. Compared with PR48, only SIM12 + PR24-48 RGT and DCV24 + ASU24 significantly improved SVR.

When the individual treatment strategies were compared head to head, the only marginally significant difference was improvement with DCV24 + ASU24 compared with SOF24 + RBV24.

Table 36: SVR Genotype 1 Treatment-Naive Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	PR48	1.01 (0.71 to 1.19)	0.67 (–23.35 to 14.48)
SOF12 + LDV12		1.01 (0.49 to 1.23)	0.63 (–40.39 to 17.20)
SOF24 + LDV24		1.00 (0.30 to 1.27)	–0.17 (–56.22 to 20.73)
SOF8 + LDV8		1.10 (0.44 to 1.29)	8.05 (–44.02 to 21.90)
SOF8 + LDV8 + RBV8		1.02 (0.36 to 1.27)	1.74 (–50.35 to 20.38)
SOF12 + LDV12 + RBV12		1.17 (0.67 to 1.33)	13.80 (–26.51 to 24.45)

Table 36: SVR Genotype 1 Treatment-Naive Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + LDV24 + RBV24		1.00 (0.24 to 1.27)	0.25 (–60.45 to 20.27)
SIM12 + PR24-48 RGT		1.16 (1.05 to 1.30)	12.91 (3.94 to 21.66)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.15 (0.50 to 1.33)	12.22 (–39.51 to 24.14)
DCV24 + ASU24		1.19 (1.08 to 1.34)	15.44 (6.43 to 24.44)
SOF12 + PR12		0.97 (0.14 to 1.28)	–2.59 (–69.60 to 21.34)
SOF12 + LDV12	SOF24 + RBV24	0.99 (0.53 to 1.39)	–0.52 (–36.59 to 23.88)
SOF24 + LDV24		0.99 (0.32 to 1.49)	–0.78 (–54.28 to 30.00)
SOF8 + LDV8		1.07 (0.47 to 1.58)	6.09 (–41.38 to 34.04)
SOF8 + LDV8 + RBV8		1.01 (0.39 to 1.49)	0.89 (–48.41 to 29.83)
SOF12 + LDV12 + RBV12		1.14 (0.68 to 1.68)	11.75 (–25.63 to 39.05)
SOF24 + LDV24 + RBV24		1.00 (0.25 to 1.51)	–0.38 (–60.63 to 31.33)
SIM12 + PR24-48 RGT		1.15 (0.97 to 1.69)	12.02 (–2.45 to 38.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.52 to 1.66)	10.19 (–38.22 to 37.85)
DCV24 + ASU24		1.18 (1.00 to 1.74)	14.60 (–0.19 to 40.85)
SOF12 + PR12		0.97 (0.14 to 1.48)	–2.77 (–69.09 to 29.98)
SOF24 + LDV24	SOF12 + LDV12	0.99 (0.36 to 1.77)	–0.72 (–47.44 to 36.38)
SOF8 + LDV8		1.07 (0.61 to 1.84)	5.66 (–28.17 to 39.67)
SOF8 + LDV8 + RBV8		1.02 (0.47 to 1.58)	1.48 (–37.75 to 29.26)
SOF12 + LDV12 + RBV12		1.14 (0.78 to 2.09)	11.63 (–17.16 to 46.94)
SOF24 + LDV24 + RBV24		1.00 (0.29 to 1.68)	0.05 (–53.74 to 33.90)
SIM12 + PR24-48 RGT		1.15 (0.95 to 2.38)	12.29 (–4.59 to 53.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.11 (0.62 to 2.07)	9.36 (–28.78 to 46.60)
DCV24 + ASU24		1.18 (0.97 to 2.45)	14.95 (–2.94 to 56.19)
SOF12 + PR12		0.97 (0.15 to 1.79)	–2.64 (–67.06 to 37.57)

Table 36: SVR Genotype 1 Treatment-Naive Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF8 + LDV8	SOF24 + LDV24	1.08 (0.49 to 3.46)	6.43 (–40.98 to 63.01)
SOF8 + LDV8 + RBV8		1.02 (0.38 to 3.22)	1.75 (–52.01 to 57.29)
SOF12 + LDV12 + RBV12		1.14 (0.77 to 3.53)	11.79 (–18.36 to 63.85)
SOF24 + LDV24 + RBV24		1.00 (0.37 to 2.43)	–0.10 (–47.19 to 45.81)
SIM12 + PR24-48 RGT		1.16 (0.92 to 3.95)	13.15 (–7.71 to 69.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.52 to 3.76)	9.53 (–39.25 to 68.76)
DCV24 + ASU24		1.19 (0.95 to 4.05)	15.24 (–4.67 to 72.28)
SOF12 + PR12		0.98 (0.26 to 1.68)	–1.97 (–46.66 to 29.66)
SOF8 + LDV8 + RBV8	SOF8 + LDV8	0.96 (0.45 to 1.52)	–3.67 (–45.71 to 24.94)
SOF12 + LDV12 + RBV12		1.05 (0.66 to 2.37)	4.44 (–29.41 to 52.33)
SOF24 + LDV24 + RBV24		0.93 (0.25 to 1.92)	–6.18 (–64.94 to 38.68)
SIM12 + PR24-48 RGT		1.05 (0.91 to 2.65)	4.62 (–8.72 to 57.69)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.64 to 1.81)	3.13 (–27.67 to 34.34)
DCV24 + ASU24		1.08 (0.94 to 2.75)	6.82 (–6.11 to 60.99)
SOF12 + PR12		0.91 (0.13 to 1.99)	–7.74 (–77.53 to 40.50)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.12 (0.71 to 3.03)	9.73 (–24.22 to 60.99)
SOF24 + LDV24 + RBV24		0.98 (0.28 to 2.41)	–1.43 (–58.56 to 49.64)
SIM12 + PR24-48 RGT		1.13 (0.92 to 3.21)	11.01 (–7.35 to 64.13)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.10 (0.60 to 2.64)	8.11 (–30.90 to 54.86)
DCV24 + ASU24		1.16 (0.95 to 3.29)	13.28 (–4.85 to 66.86)
SOF12 + PR12		0.96 (0.14 to 2.50)	–3.17 (–74.63 to 50.92)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.88 (0.25 to 1.28)	–11.41 (–67.50 to 18.28)
SIM12 + PR24-48 RGT		0.99 (0.88 to 1.75)	–1.16 (–11.53 to 40.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.47 to 1.56)	–0.91 (–47.49 to 32.92)

Table 36: SVR Genotype 1 Treatment-Naive Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24		1.01 (0.91 to 1.82)	0.92 (–8.91 to 43.19)
SOF12 + PR12		0.85 (0.13 to 1.30)	–14.26 (–79.60 to 19.42)
SIM12 + PR24-48 RGT	SOF24 + LDV24 + RBV24	1.16 (0.93 to 4.85)	12.93 (–7.17 to 73.42)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.57 to 4.30)	10.09 (–35.87 to 68.95)
DCV24 + ASU24		1.19 (0.95 to 4.98)	15.33 (–5.20 to 76.39)
SOF12 + PR12		0.98 (0.18 to 2.82)	–1.55 (–65.35 to 50.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 + PR24-48 RGT	1.00 (0.43 to 1.13)	–0.15 (–53.15 to 10.87)
DCV24 + ASU24		1.03 (0.93 to 1.14)	2.40 (–6.37 to 11.79)
SOF12 + PR12		0.83 (0.12 to 1.09)	–15.51 (–82.38 to 8.33)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.03 (0.91 to 2.41)	2.55 (–8.47 to 56.21)
SOF12 + PR12		0.87 (0.13 to 1.90)	–11.82 (–81.86 to 38.89)
SOF12 + PR12	DCV24 + ASU24	0.82 (0.11 to 1.06)	–17.79 (–85.02 to 5.22)
Random Effect Model	Residual Deviance	24.72 vs. 29 data points	
	Deviance Information Criteria	117.779	
Fixed Effect Model	Residual Deviance	23.87 vs. 29 data points	
	Deviance Information Criteria	114.047	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with 'Treatment' compared with 'Reference'.

HIV-Coinfected Patients

Eight studies of treatment-naive genotype 1 patients with CHC infection reported data for HIV-coinfected patients.[74,82,87,89-91,93,94]

In treatment-naive patients, the treatments studied were SOF24 + RBV24 (two studies, SVR rate 76% to 85% in 226 patients), SOF12 + PR12 (one study, SVR rate 91% in 23 patients of mixed genotype 1 to 4), SOF12 + LDV12 (one study, SVR rate 98% in 50 patients) and PR48 (three studies, SVR rate 29% to 50% in 48 patients), telaprevir (two studies, SVR rate 71% to 80% in 22 patients) and boceprevir (one study, SVR rate 63% in 64 patients). The evidence network for SVR12 in patients with an HIV coinfection included 410 patients from six

studies.[74,82,87,90,93,94] Overall, the five treatment regimens considered provided for 3 direct treatment comparisons (based on three 2-arm studies), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.39 (95% CrI 0.25 to 0.53).

The results of the random effects NMA model of treatments compared to PR48 are presented in Table 37. Compared with PR48, all treatments (in particular, SOF12 + LDV12 and SOF24 + RBV24) significantly improved SVR.

Table 37: SVR Genotype 1 Treatment-Naive Patients With HIV Coinfection — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	2.08 (1.39 to 3.36)	42.12 (18.37 to 62.52)
SOF12 + LDV12		2.46 (1.72 to 3.78)	56.76 (35.76 to 71.78)
SOF12 + LDV12	SOF24 + RBV24	1.17 (0.92 to 1.56)	14.10 (–7.13 to 34.95)
Random Effect Model	Residual Deviance	10.15 vs. 12 data points	
	Deviance Information Criteria	56.046	
Fixed Effect Model	Residual Deviance	10.02 vs. 12 data points	
	Deviance Information Criteria	55.736	

CrI = credible interval; LDV = ledipasvir; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

One study (C-WORTHY)[89] reported use of the emerging treatments ELB12 (20 mg) + GRZ12 ± RBV in this patient population (87% in 30 patients, or 97% with RBV12 in 29 patients).[89]

Sensitivity Analysis — TURQUOISE-I Study

One study (TURQUOISE-I) reported SVR data for treatment-naive genotype 1 patients with HIV coinfection treated with PAR/RIT12 + OMB12 + DAS12 + RBV12. The baseline characteristics for treatment-experienced and treatment-naive patients were not reported separately; hence, it was not possible to include this trial in the base-case analysis of HIV-coinfected patients. A sensitivity analysis was conducted to include data from the TURQUOISE-I study in the analysis, by assuming that the combined baseline characteristics data could be applied to treatment-naive patients.[91] Compared with PR48, all treatments including PAR/RIT12 + OMB12 + DAS12 + RBV12, SOF12 + LDV12, and SOF24 + RBV24 significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared with each other.

Subgroup Analyses — Treatment-Experienced Patients

Viral Load at Baseline > 800,000 or 1,000,000 IU/mL

The network for treatment-experienced patients with genotype 1 infection and viral load > 800,000 or 1,000,000 IU/mL involved 1,489 patients in eight studies.[42,45,56,60,72,73,84,101] Overall, the eight treatment regimens considered provided for seven direct treatment comparisons

(based on 1 four-arm study and 1 two-arm study), and six treatment estimates based on single-arm studies. PR48 was not one of the direct treatment comparisons in this network, and therefore could not be considered as the reference treatment. SOF12 + LDV12 was selected as the reference. The rate of SVR12 for the reference treatment SOF12 + LDV12 was 0.94 (95% CrI, 0.89 to 0.98).

The results of the random effects NMA model of treatments compared with PR48 are presented in Table 38.

In particular, when the individual treatment strategies were compared head to head:

- SOF24 + LDV24 was significantly better than DCV24 + ASU24 and SOF12 + PR12
- PAR/RIT12 + OMB12 + DAS12 + RBV12 was significantly better than DCV24 + ASU24

Table 38: SVR Genotype 1 Treatment-Experienced Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + LDV24	SOF12 + LDV12	1.04 (0.98 to 1.10)	3.42 (–1.48 to 8.92)
SOF12 + LDV12 + RBV12		1.03 (0.98 to 1.10)	2.91 (–2.01 to 8.47)
SOF24 + LDV24 + RBV24		1.05 (1.00 to 1.11)	4.46 (–0.05 to 9.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.91 to 1.10)	2.64 (–8.26 to 8.64)
DCV24 + ASU24		0.92 (0.67 to 1.04)	–7.28 (–30.94 to 3.27)
DCV24 + ASU24 + PR24		0.99 (0.58 to 1.08)	–0.95 (–39.66 to 7.50)
SOF12 + PR12		0.91 (0.56 to 1.04)	–8.62 (–41.17 to 3.44)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.00 (0.96 to 1.03)	–0.45 (–3.99 to 2.87)
SOF24 + LDV24 + RBV24		1.01 (0.97 to 1.06)	1.06 (–2.68 to 5.17)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.89 to 1.03)	–0.53 (–10.64 to 3.24)
DCV24 + ASU24		0.89 (0.65 to 0.98)	–10.61 (–33.78 to –1.52)
DCV24 + ASU24 + PR24		0.96 (0.56 to 1.03)	–4.16 (–43.40 to 2.91)
SOF12 + PR12		0.88 (0.55 to 0.99)	–11.96 (–44.07 to –1.21)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.98 to 1.06)	1.48 (–2.05 to 5.72)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.91 to 1.03)	–0.09 (–8.95 to 2.64)
DCV24 + ASU24		0.89 (0.67 to 0.98)	–10.20 (–31.58 to –2.25)
DCV24 + ASU24 + PR24		0.96 (0.56 to 1.04)	–3.72 (–42.50 to 3.55)
SOF12 + PR12		0.88 (0.56 to 0.98)	–11.48 (–42.25 to –1.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + LDV24 + RBV24	0.98 (0.88 to 1.02)	–1.57 (–12.24 to 2.20)
DCV24 + ASU24		0.88 (0.64 to 0.98)	–11.75 (–35.44 to –1.79)

Table 38: SVR Genotype 1 Treatment-Experienced Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24 + PR24		0.95 (0.56 to 1.00)	–5.30 (–42.92 to –0.19)
SOF12 + PR12		0.87 (0.53 to 0.98)	–13.07 (–46.03 to –1.79)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.90 (0.67 to 0.99)	–9.53 (–31.00 to –0.64)
DCV24 + ASU24 + PR24		0.97 (0.57 to 1.09)	–3.28 (–41.48 to 7.79)
SOF12 + PR12		0.89 (0.56 to 1.00)	–10.84 (–42.00 to 0.35)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.06 (0.64 to 1.46)	5.56 (–32.01 to 29.93)
SOF12 + PR12		0.99 (0.66 to 1.27)	–1.23 (–28.96 to 18.36)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.93 (0.58 to 1.53)	–6.51 (–39.96 to 30.29)
Random Effect Model	Residual Deviance	16.3 vs. 18 data points	
	Deviance Information Criteria	89.512	
Fixed Effect Model	Residual Deviance	16.03 vs. 18 data points	
	Deviance Information Criteria	88.713	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Red shading indicates statistically significantly lower SVR rate with “Treatment” compared with “Reference”.

Viral Load at Baseline < 800,000 or 1,000,000 IU/mL

The network for treatment-experienced patients with genotype 1 infection and viral load < 800,000 or 1,000,000 IU/mL involved 215 patients in eight studies.[42,45,56,60,72,73,84,101] Overall, the eight treatment regimens considered provided for seven direct treatment comparisons (based on one study with four arms and one study with two arms), and six treatment estimates based on single-arm studies. PR48 was not one of the direct comparisons in the network, and therefore could not be considered as the reference treatment. SOF12 + LDV12 was selected as the reference. The rate of SVR12 for the reference treatment SOF12 + LDV12 was 0.91 (95% CrI, 0.65 to 0.99).

The results of the random effects NMA model of treatments compared with PR48 are presented in Table 39. When the individual treatment strategies were compared head to head (in particular, SOF12 + LDV12, SOF24 + LDV24, PAR/RIT12 + OMB12 + DAS12 + RBV12, DCV24 + ASU24 ± PR24, and SOF12 + PR12) no significant differences for SVR were identified.

Table 39: SVR Genotype 1 Treatment-Experienced Patients With Viral Load < 800,000 or 1,000,000 IU/mL l — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% Crl)**	**RD % (95% Crl)**
SOF24 + LDV24	SOF12 + LDV12	1.01 (0.81 to 1.40)	1.10 (–17.41 to 26.65)
SOF12 + LDV12 + RBV12		1.02 (0.84 to 1.40)	2.06 (–14.81 to 26.56)
SOF24 + LDV24 + RBV24		1.03 (0.82 to 1.41)	3.00 (–17.00 to 27.20)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.75 to 1.46)	5.31 (–22.00 to 30.30)
DCV24 + ASU24		1.01 (0.59 to 1.39)	0.95 (–36.76 to 26.10)
DCV24 + ASU24 + PR24		1.06 (0.82 to 1.47)	5.85 (–16.00 to 30.79)
SOF12 + PR12		1.00 (0.37 to 1.34)	–0.02 (–54.98 to 23.70)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.86 to 1.22)	0.75 (–12.87 to 16.80)
SOF24 + LDV24 + RBV24		1.02 (0.79 to 1.28)	1.57 (–19.26 to 20.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.04 (0.73 to 1.30)	4.06 (–23.82 to 21.96)
DCV24 + ASU24		1.00 (0.59 to 1.22)	0.06 (–36.48 to 17.02)
DCV24 + ASU24 + PR24		1.05 (0.78 to 1.32)	4.78 (–19.73 to 23.87)
SOF12 + PR12		0.99 (0.35 to 1.23)	–1.27 (–57.78 to 17.64)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.79 to 1.24)	0.74 (–19.57 to 18.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.74 to 1.24)	3.05 (–22.77 to 18.47)
DCV24 + ASU24		0.99 (0.61 to 1.12)	–0.75 (–33.79 to 10.18)
DCV24 + ASU24 + PR24		1.04 (0.79 to 1.28)	3.90 (–19.98 to 21.40)
SOF12 + PR12		0.98 (0.36 to 1.16)	–2.00 (–55.75 to 12.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + LDV24 + RBV24	1.03 (0.71 to 1.32)	2.56 (–27.16 to 23.39)
DCV24 + ASU24		0.99 (0.56 to 1.25)	–1.41 (–40.60 to 19.12)
DCV24 + ASU24 + PR24		1.03 (0.83 to 1.27)	2.77 (–15.38 to 20.32)
SOF12 + PR12		0.97 (0.34 to 1.25)	–2.80 (–60.76 to 19.04)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.96 (0.56 to 1.31)	–3.58 (–41.65 to 20.77)
DCV24 + ASU24 + PR24		1.00 (0.75 to 1.47)	0.33 (–24.47 to 31.15)
SOF12 + PR12		0.95 (0.34 to 1.31)	–5.01 (–62.12 to 21.69)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.05 (0.79 to 1.86)	4.54 (–20.21 to 44.60)
SOF12 + PR12		0.99 (0.38 to 1.58)	–0.98 (–52.30 to

Table 39: SVR Genotype 1 Treatment-Experienced Patients With Viral Load < 800,000 or 1,000,000 IU/mL l — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
			32.82)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.94 (0.33 to 1.25)	–5.85 (–64.09 to 18.84)
Random Effect Model	Residual Deviance	13.36 vs. 18 data points	
	Deviance Information Criteria	60.174	
Fixed Effect Model	Residual Deviance	13.41 vs. 18 data points	
	Deviance Information Criteria	60.257	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients With HIV Coinfection

One study (TURQUOISE-I) reported SVR data for treatment-experienced genotype 1 patients with HIV coinfection treated with PAR/RIT + OMB + DAS + RBV for 12 or 24 weeks.[91] Patients with cirrhosis were also included in the treatment population. In the group of patients receiving 12 weeks of therapy (n = 11), 91% achieved SVR12, while in the group that received 24 weeks of therapy (n = 10), 90% achieved SVR. Both patients who did not achieve SVR12 had cirrhosis.

Patients Previously Treated With DAA-based Regimens

Nine studies included patients who had previously been treated with a DAA-containing regimen.[42,45,46,51,67,73,80,84,95] Eight of these reported treatment experience with either PR alone or a DAA + PR or RBV. Combined results were often presented, such that it was not usually possible to discern efficacy specifically among DAA-experienced patients. Sample sizes for the studies ranged between 14 and 441. SOF + LDV (12-week and 24-week ± RBV) was the most frequently studied treatment regimen (seven studies). With the exception of one small study (n = 14) that included patients with HCV infection genotypes 1 through 4,[80] all studies reported results from adults with genotype 1 infection.

Data for the efficacy of treatments for CHC infection in patients previously treated unsuccessfully with DAA-PR regimens were limited to four studies that reported SVR rates specifically in this population. One study enrolling 80 patients[84] with CHC genotype 1 infection without cirrhosis and prior experience with DAA-PR reported an SVR rate of 79% with SOF12 + PR12. A second trial[45] of 155 patients with genotype 1 infection previously treated with DAA-PR reported an SVR rate of 97% with SOF24 + RBV24. A third study[67] reported SVR rates of 100% and 95% with SOF12 + LDV12 + RBV12 (n = 21) and SOF12 + LDV12 (n = 19), respectively, among patients with CHC genotype 1 infection and cirrhosis previously treated with DAA (other than SOF) plus PR.

The ION-2 study[42] investigated SOF + LDV ± RBV in patients with CHC genotype 1 infection who had not achieved SVR after treatment with PR, with or without a protease inhibitor. SVR12 rates were above 93% in all of the patients in the 12-week groups and above 97% in the 24-week groups, regardless of previous experience with PR or a protease inhibitor plus PR. The addition of RBV did not appear to provide additional benefit. The number of patients

with cirrhosis was small. Eight patients with cirrhosis who were previously treated with PR had SVR12 rates of 88% after 12 weeks of treatment, and 78% with the addition of RBV in nine patients. About 85% of patients with cirrhosis who had previously received a protease inhibitor + PR achieved SVR at 12 weeks with no benefit from the addition of RBV. In the 24-week treatment groups, all 46 patients with cirrhosis achieved SVR regardless of previous treatment type or the addition of RBV.

Only one study[80] reported SVR rates for patients with CHC genotype 1 infection previously treated with SOF + RBV. In this study, all 14 patients achieved SVR with SOF12 + LDV12.

Genotype 2

Network meta-analyses were conducted for a single efficacy outcome: SVR at 12 weeks. The choice of this outcome for NMA was based on clinical relevance, and the sufficiency of the data available to derive robust and consistent network models. Patient populations were analyzed according to treatment experience (naive or experienced) and then by subgroups within each of the two experience categories (e.g., cirrhotic, non-cirrhotic). For each patient group, the relative risks based on the ORs from the NMA are provided, comparing each DAA treatment to a reference treatment. Results for select head-to-head comparisons of the DAA treatment regimens are also presented. A full listing of the random effects model results, as well as model diagnostics for the fixed and random effects models, is available in APPENDIX 10, along with estimated relative risks and absolute risks. Results from additional sensitivity analyses are also discussed in context with the relevant patient populations. Full NMA results for the sensitivity analyses are available in APPENDIX 12.

For genotype 2, five studies involved treatment-naive patients[53,65,74,79,93] and four studies[32,66,79,99] involved treatment-experienced patients; the number of studies included in the NMA varied by outcome. Of the studies involving experienced patients, only one was an RCT. Of the studies involving treatment-naive patients, two were RCTs. The remaining studies reported data for single, uncontrolled intervention arms or comparisons with a historical control. PR24 was used as the reference treatment for genotype 2 treatment-naive patients. As there were no comparative trials of DAA-based regimens with PR24, a supplemental literature search was conducted to identify the necessary data for PR24 in treatment-naive patients with genotype 2 infection that could be incorporated into the NMA. The search yielded one study (FUSION) that could be used for this purpose. The reference treatment used for treatment-experienced patients was SOF12 + RBV12, as PR of any duration was not deemed to be a relevant treatment option in this patient group, based on expert clinical input.[32] While DCV + SOF regimens were of interest for the treatment of genotype 2 infection, no data specific to genotype 2 infection were identified. The full tables showing RRs and RDs for all treatments are provided in APPENDIX 10.

A single study[48] reported data for HIV-coinfected patients who were treatment-experienced (prior relapse, partial response, and null responders) and given SIM12 + PR12 (extended to 48 weeks for partial, null, and patients with cirrhosis). SVR12 rates ranged from 57% to 87%.

Treatment-Naive Patients

All Patients

The evidence network for SVR12 in treatment-naive genotype 2 patients included five studies[52,65,74,79,93] and a total of 116 participants (Figure 12). Overall, three different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-

arm studies), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR24 was 0.78 (95% CrI, 0.72 to 0.83).

FIGURE 12: SVR GENOTYPE 2 TREATMENT-NAIVE PATIENTS — EVIDENCE NETWORK

PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of treatments compared with PR48 are presented in Table 40. Compared with PR24, SOF12 + RBV12 significantly improved SVR in genotype 2 treatment-naive patients, whereas SOF12 + PR12 was not significantly different from PR24. When the individual treatment strategies were compared head to head, no significant difference was identified.

Table 40: SVR Genotype 2 Treatment-Naive Patients — Relative Risks and Risk Differences for All Treatment Comparisons

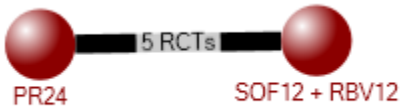
Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + RBV12	PR24	1.20 (1.08 to 1.32)	15.65 (6.83 to 22.97)
SOF12 + PR12		1.13 (0.45 to 1.33)	9.81 (–42.57 to 24.12)
SOF12 + PR12	SOF12 + RBV12	0.94 (0.39 to 1.08)	–5.52 (–56.55 to 7.21)
Random Effect Model	Residual Deviance	9.337 vs. 10 data points	
	Deviance Information Criteria	43.641	
Fixed Effect Model	Residual Deviance	9.669 vs. 10 data points	
	Deviance Information Criteria	43.536	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with “Treatment” compared with “Reference”.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 2 patients with cirrhosis included five studies[65,74,79,93,99] and a total of 37 participants (Figure 13). Overall, two different treatment regimens were considered, providing for a single direct comparison (based on a single two-arm study), and four treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR24 was 0.62 (95% CrI, 0.50 to 0.73).

FIGURE 13: SVR GENOTYPE 2 TREATMENT-NAIVE PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model are presented in Table 41. Compared with PR24, SOF12 + RBV12 significantly improved SVR in genotype 2 treatment-naive patients (RR 1.38 (1.03 to 1.79), RD 23.52% (1.76 to 40.79)).

Table 41: SVR Genotype 2 Treatment-Naive Patients With Cirrhosis — Relative Risk and Risk Difference for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + RBV12	PR24	1.38 (1.03 to 1.79)	23.52 (1.76 to 40.79)
Random Effect Model	Residual Deviance	6.875 vs. 8 data points	
	Deviance Information Criteria	31.534	
Fixed Effect Model	Residual Deviance	6.92 vs. 8 data points	
	Deviance Information Criteria	31.468	

CrI = credible interval; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 2 patients without cirrhosis included six studies[52,65,74,79,93,99] and a total of 278 participants (Figure 14). Overall, three different treatment regimens were considered, providing for two direct treatment comparisons (based on 2 two-arm studies), and four treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR24 was 0.81 (95% CrI, 0.77 to 0.86).

FIGURE 14: SVR GENOTYPE 2 TREATMENT-NAIVE PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK

PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR24 and each other are presented in Table 42. Compared with PR24, only SOF12 + RBV12 significantly improved SVR in genotype 2 treatment-naive patients without cirrhosis (RR 1.16 [1.08 to 1.24]; RD 13.13% [7.11 to 18.84]). When the treatment strategies SOF12 + RBV12 and SOF12 + PR12 were compared, there was no significant improvement in SVR.

Table 42: SVR Genotype 2 Treatment-Naive Patients Without Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + RBV12	PR24	1.16 (1.08,1.24)	13.13 (7.11 to 18.84)
SOF12 + PR12		1.15 (0.48,1.27)	12.24 (–42.72 to 20.81)
SOF12 + PR12	SOF12 + RBV12	0.99 (0.41,1.07)	–0.56 (–55.44 to 6.59)
Random Effect Model	Residual Deviance	3.912 vs. 6 data points	
	Deviance Information Criteria	18.761	
Fixed Effect Model	Residual Deviance	3.841 vs. 6 data points	
	Deviance Information Criteria	18.66	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Treatment-Experienced Patients

All Patients

The evidence network for SVR12 in treatment-experienced genotype 2 patients included four studies[32,66,79,99] and a total of 172 participants (Figure 15). Overall, three different treatment regimens were considered, providing for a single direct treatment comparison (based on a single two-arm study), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment SOF12 + RBV12 therapy was 0.90 (95% CrI, 0.85 to 0.94).

FIGURE 15: SVR GENOTYPE 2 TREATMENT-EXPERIENCED PATIENTS — EVIDENCE NETWORK

PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with SOF12 + RBV12 and each other are presented in Table 43. Neither SOF16 + RBV16 nor SOF12 + PR12 significantly improved SVR compared with SOF12 + RBV12. SOF12 + PR12 significantly improved SVR when compared with SOF16 + RBV16.

Table 43: SVR Genotype 2 Treatment-Experienced Patients — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF16 + RBV16	SOF12 + RBV12	0.86 (0.63 to 1.02)	–12.21 (–33.63 to 1.88)
SOF12 + PR12		1.07 (0.93 to 1.15)	6.57 (–6.25 to 12.59)
SOF12 + PR12	SOF16 + RBV16	1.23 (1.00 to 1.70)	18.27 (0.20 to 40.32)
Random Effect Model	Residual Deviance	6.58 vs. 8 data points	
	Deviance Information Criteria	34.221	
Fixed Effect Model	Residual Deviance	6.609 vs. 8 data points	
	Deviance Information Criteria	34.152	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 2 patients with cirrhosis included four studies[32,66,79,99] and a total of 172 participants (Figure 16). All had compensated cirrhosis. Overall, three different treatment regimens were considered, providing for a single direct treatment comparison (based on a single two-arm study), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment SOF12 + RBV12 therapy was 0.73 (95% CrI, 0.58 to 0.86).

FIGURE 16: SVR GENOTYPE 2 TREATMENT-EXPERIENCED PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK

PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

There were no statistically significant differences in SVR rates between any of the three regimens: SOF12 + RBV12, SOF16+ RBV16, and SOF12 +PR12 (Table 44).

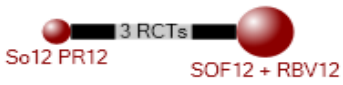
Table 44: SVR Genotype 2 Treatment-Experienced Patients With Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF16 + RBV16	SOF12 + RBV12	1.05 (0.71 to 1.41)	3.80 (–22.57 to 25.33)
SOF12 + PR12		1.29 (0.99 to 1.64)	21.20 (–1.07 to 37.97)
SOF12 + PR12	SOF16 + RBV16	1.23 (0.89 to 1.79)	17.53 (–9.56 to 42.81)
Random Effect Model	Residual Deviance	6.875 vs. 8 data points	
	Deviance Information Criteria	31.534	
Fixed Effect Model	Residual Deviance	6.92 vs. 8 data points	
	Deviance Information Criteria	31.468	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 2 patients without cirrhosis included three studies[66,79,99] and a total of 95 participants (Figure 17). Overall, two different treatment regimens were considered, providing for no direct treatment comparisons, and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment SOF12 + RBV12 therapy was 0.95 (95% CrI, 0.91 to 0.98).

FIGURE 17: SVR GENOTYPE 2 TREATMENT-EXPERIENCED PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

SOF12 + PR12 did not significantly improve SVR in the random effects NMA model when compared with SOF12 + RBV12 (Table 45).

Table 45: SVR Genotype 2 Treatment-Experienced Patients Without Cirrhosis — Relative Risk and Risk Difference for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF12 + PR12	SOF12 + RBV12	1.01 (0.89 to 1.07)	0.57 (–10.36 to 6.51)
Random Effect Model	Residual Deviance	3.912 vs. 6 data points	
	Deviance Information Criteria	18.761	
Fixed Effect Model	Residual Deviance	3.841 vs. 6 data points	
	Deviance Information Criteria	18.66	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Subgroups — Treatment-Naive Patients

Viral Load at Baseline > 800,000 or 1,000,000 IU/mL

A subgroup analysis was conducted for genotype 2 treatment-naive patients with a baseline viral load of > 800,000 or 1,000,000 IU/mL. The evidence network for SVR12 in this subgroup included four studies[65,74,79,93] and a total of 193 participants. Overall, two different treatment regimens (SOF12 + RBV12 and PR24) were considered, providing for one direct treatment comparison (based on 1 two-arm study), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR24 was 0.80 (95% CrI, 0.74 to 0.85).

Compared with PR24, SOF12 + RBV12 significantly improved SVR12 in the random effects NMA model (RR 1.17 [1.07 to 1.28]; RD 13.25% [5.60 to 20.55]).

Viral Load at Baseline < 800,000 or 1,000,000 IU/mL

A subgroup analysis was conducted for genotype 2 treatment-naive patients with a baseline viral load of < 800,000 or 1,000,000 IU/mL. The evidence network for SVR12 in this subgroup included four studies[65,74,79,93] and a total of 82 participants. Overall, two different treatment regimens (SOF12 + RBV12 and PR24) were considered, providing for one direct treatment comparison (based on 1 two-arm study), and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR24 was 0.75 (95% CrI, 0.65 to 0.83).

Compared with PR24, SOF12 + RBV12 significantly improved SVR12 in the random effects NMA model (RR 1.25 [1.08 to 1.45]; RD 19.04% [6.66 to 29.79]).

Subgroups — HIV Coinfection

Two studies[74,93] reported on the use of SOF12 + RBV12 (SVR rate 88% to 89% in 45 patients) in genotype 2 treatment-naive patients with HIV coinfection. No studies reported on genotype 2 treatment-experienced patients with HIV coinfection. Data were insufficient for subgroup analyses.

Genotype 3

Five single-arm studies reported data for genotype 3 patients with CHC infection.[66,74,77,93,99] Because all studies in this NMA were single-arm, there was no natural reference treatment. Clinical experts agreed that PR48 could be used as a reference treatment so that the single-arm studies could be analyzed in the NMA, although it was not considered a clinically relevant option for treatment-experienced patients. Supplemental literature searches were conducted to identify the best available evidence for SVR rates associated with PR48 in patients with genotype 3 infection. The SVR rate for genotype 3 treatment-naïve patients who were treated with PR48 was extracted from a meta-analysis by Andriulli 2008.[33] For treatment-experienced patients, the PR48 data for genotype 3 patients were incorporated into the analysis from Poynard 2009,[34] an observational study. This was a prospective, international, multi-centre, open-label study that evaluated the efficacy and safety of peginterferon alfa-2b (1.5 mcg/kg/wk) plus weight-based ribavirin (800 mg/day to 1,400 mg/day) in 2,333 CHC-infected patients with significant fibrosis or cirrhosis whose previous interferon alfa plus ribavirin therapy had failed.

During the project, a protocol amendment was made to the eligible regimens for patients with and without cirrhosis. The eligible regimen for inclusion was changed from DCV + SOF for 12 or 24 weeks into 12 weeks for patients without cirrhosis and 24 weeks for patients with compensated cirrhosis. One study[93] reported results on DCV + SOF for 24 weeks in patients with genotype 3 infection and HIV coinfection; however, results were reported for a combined group of genotypes 2 and 3. The ALLY-3 study[77] reported results on 12 weeks of treatment with DCV + SOF in patients with genotype 3 infection.

Treatment-Naive Patients

All Patients

The evidence network for SVR12 in treatment-naive genotype 3 patients included three studies[74,77,99] and a total of 237 participants (Figure 18). Overall, three different treatment regimens were considered, providing for no direct treatment comparisons, and three treatment estimates based on single-arm studies.[74,77,99] Evidence was available for all regimens of interest except SOF12 + PR12 and SOF12 + LDV12 + RBV12, both of which are guideline-recommended as alternative regimens for treatment-naive patients with genotype 3 infection.[1] As well, data specific to genotype 3 were not available for DCV24 + SOF24 ± RBV24; therefore, these regimens could not be included in the NMAs. The rate of SVR12 for the reference treatment PR48 was 0.71 (95% CrI, 0.69 to 0.73).

FIGURE 18: SVR GENOTYPE 3 TREATMENT-NAIVE PATIENTS — EVIDENCE NETWORK

DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 46. Compared with PR48, both SOF24 + RBV24 and DCV12 + SOF12 significantly improved SVR. There was no significant difference in SVR when DCV12 + SOF12 was compared with SOF24 + RBV24.

Table 46: SVR Genotype 3 Treatment-Naive Patients — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.31 (1.21 to 1.37)	21.82 (14.74 to 25.97)
DCV12 + SOF12		1.37 (1.26 to 1.42)	26.08 (18.69 to 29.05)
DCV12 + SOF12	SOF24 + RBV24	1.05 (0.96 to 1.13)	4.16 (–3.50 to 11.09)
Random Effect Model	Residual Deviance	10.56 vs. 10 data points	
	Deviance Information Criteria	66.132	
Fixed Effect Model	Residual Deviance	11.32 vs. 10 data points	
	Deviance Information Criteria	66.119	

CrI = credible interval; DCV = daclatasvir; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

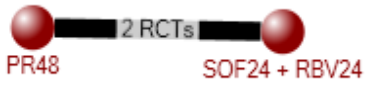
Sensitivity Analysis — BOSON Study

In the absence of evidence in the peer-reviewed literature for use of SOF12 + PR12 in treatment-naive patients with genotype 3 infection, and upon consideration of input from clinical experts indicating the potential clinical utility and cost-effectiveness of this regimen, sensitivity analyses were conducted to include data from the BOSON study in the analysis.[26] This is a relatively large RCT comparing SOF24 + RBV24 against SOF12 + PR12, and the results have been presented at major conferences. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared with each other.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 3 patients with cirrhosis included two studies[74,99] and a total of 16 participants (Figure 19). Overall, two different treatment regimens were considered, providing for no direct treatment comparisons, and two treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.60 (95% CrI, 0.56 to 0.64).

FIGURE 19: SVR GENOTYPE 3 TREATMENT-NAIVE PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of SOF24 + RBV24 compared with PR48 are presented in Table 47. Compared with PR48, SOF24 + RBV24 significantly improved SVR.

Table 47: SVR Genotype 3 Treatment-Naive Patients With Cirrhosis — Relative Risk and Risk Difference for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.51 (1.14 to 1.70)	30.82 (8.60 to 40.21)
Random Effect Model	Residual Deviance	7.854 vs. 8 data points	
	Deviance Information Criteria	48.042	
Fixed Effect Model	Residual Deviance	8.366 vs. 8 data points	
	Deviance Information Criteria	48.013	

RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Sensitivity Analysis — BOSON Study

Sensitivity analyses were conducted to include the BOSON study[26] of SOF24 + RBV24 compared with SOF12 + PR12. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared against each other.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-naive genotype 3 patients without cirrhosis included three studies[74,77,99] and a total of 221 participants (Figure 20). Overall, three different treatment regimens were considered, providing for no direct treatment comparisons, and three treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.71 (95% CrI, 0.64 to 0.77).

FIGURE 20: SVR GENOTYPE 3 TREATMENT-NAIVE PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK

DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model of SOF24 + RBV24 and DCV12 + SOF12 compared with PR48 and each other are presented in Table 48. Compared with PR48, both SOF24 + RBV24 and DCV12 + SOF12 significantly improved SVR. When compared head to head, SOF24 + RBV24 and DCV12 + SOF12 were not significantly different.

Table 48: SVR Genotype 3 Treatment-Naive Patients Without Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.32 (1.18 to 1.47)	22.44 (13.18 to 30.40)
DCV12 + SOF12		1.38 (1.23 to 1.53)	26.49 (17.39 to 33.81)
DCV12 + SOF12	SOF24 + RBV24	1.04 (0.95 to 1.14)	4.10 (–4.61 to 11.81)
Random Effect Model	Residual Deviance	9.206 vs. 10 data points	
	Deviance Information Criteria	59.551	
Fixed Effect Model	Residual Deviance	9.193 vs. 10 data points	
	Deviance Information Criteria	59.126	

CrI = credible interval; DCV = daclatasvir; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Sensitivity Analysis — BOSON Study

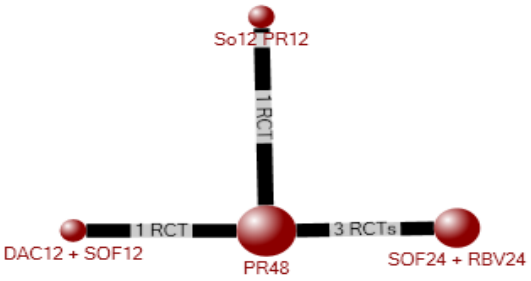
Sensitivity analyses were conducted to include the BOSON study[26] comparing SOF24 + RBV24 against SOF12 + PR12. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared against each other.

Treatment-Experienced Patients

All Patients

The evidence network for SVR12 in treatment-experienced genotype 3 patients included five studies[66,74,77,93,99] and a total of 269 participants (Figure 21). Overall, four different treatment regimens were considered, providing for no direct comparisons, and five treatment estimates based on single-arm studies. Evidence was available for all regimens of interest except SOF12 + LDV12 + RBV12, which is guideline-recommended as an alternative regimen for treatment-experienced patients with genotype 3 infection.[1] As well, data specific to genotype 3 were not available for DCV24 + SOF24 ± RBV24; therefore, these regimens could not be included in the NMAs. The rate of SVR12 for the reference treatment PR48 was 0.55 (95% CrI, 0.52 to 0.57).

FIGURE 21: SVR GENOTYPE 3 TREATMENT-EXPERIENCED PATIENTS — EVIDENCE NETWORK



DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 49. Compared with PR48, SOF24 + RBV24, DCV12 + SOF12 and SOF12 + PR12 significantly improved SVR.

When the individual treatment strategies were compared head to head, there were no statistically significant differences in SVR rates among any of the three regimens.

Table 49: SVR Genotype 3 Treatment-Experienced Patients — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.52 (1.35 to 1.69)	28.39 (19.53 to 37.00)
DCV12 + SOF12		1.72 (1.44 to 1.86)	39.32 (24.20 to 45.32)
SOF12 + PR12		1.53 (1.09 to 1.77)	28.72 (4.64 to 41.13)
DCV12 + SOF12	SOF24 + RBV24	1.13 (0.93 to 1.28)	10.59 (–6.18 to 21.14)
SOF12 + PR12		1.00 (0.70 to 1.20)	0.15 (–25.27 to 15.48)
SOF12 + PR12	DCV12 + SOF12	0.89 (0.63 to 1.11)	–10.10 (–34.80 to 8.78)
Random Effect Model	Residual Deviance	10.56 vs. 10 data points	

Table 49: SVR Genotype 3 Treatment-Experienced Patients — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
	Deviance Information Criteria	66.132	
Fixed Effect Model	Residual Deviance	11.32 vs. 10 data points	
	Deviance Information Criteria	66.119	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Sensitivity Analysis

Sensitivity analyses were conducted to include the BOSON study[26] comparing SOF24 + RBV24 against SOF12 + PR12. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared with each other.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 3 patients with cirrhosis included four studies[66,74,93,99] and a total of 88 participants (Figure 22). Overall, three different treatment regimens were considered, providing for no direct comparisons, and four treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.48 (95% CrI, 0.44 to 0.42).

One study reporting data (ALLY-3, Nelson 2015[77]) for genotype 3 cirrhotic patients was not included because the treatment under consideration (DCV12 + SOF12) is not indicated in genotype 3 patients with cirrhosis.

FIGURE 22: SVR GENOTYPE 3 TREATMENT-EXPERIENCED PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK

PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 50. Compared with PR48, SOF24 + RBV24 and SOF12 + PR12 significantly improved SVR. When the individual treatment strategies were compared head to head, SOF24 + RBV24 and SOF12 + PR12 were not significantly different from one another.

Table 50: SVR Genotype 3 Treatment-Experienced Patients With Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	PR48	1.47 (1.14 to 1.79)	22.21 (6.77 to 36.34)
SOF12 + PR12		1.73 (1.09 to 2.09)	35.03 (4.28 to 49.96)
SOF12 + PR12	SOF24 + RBV24	1.17 (0.73 to 1.59)	12.27 (–20.27 to 34.04)
Random Effect Model	Residual Deviance	7.854 vs. 8 data points	
	Deviance Information Criteria	48.042	
Fixed Effect Model	Residual Deviance	8.366 vs. 8 data points	
	Deviance Information Criteria	48.013	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

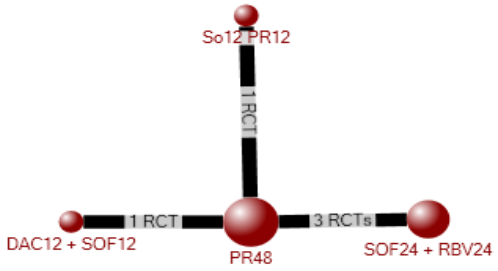
Sensitivity Analysis

Sensitivity analyses were conducted to include the BOSON study[26] comparing SOF24 + RBV24 against SOF12 + PR12. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared with each other.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 3 patients without cirrhosis included five studies[66,74,77,93,99] and a total of 181 participants (Figure 23). Overall, four different treatment regimens were considered, providing for no direct comparisons, and five treatment estimates based on single-arm studies. The rate of SVR12 for the reference treatment PR48 was 0.61 (95% CrI, 0.58 to 0.64).

FIGURE 23: SVR GENOTYPE 3 TREATMENT-EXPERIENCED PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK



DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 51. Compared with PR48, SOF24 + RBV24 and DCV12 + SOF12 significantly improved SVR. There was no statistically significant improvement in SVR when SOF12 + PR12 was compared with PR48. When the individual treatment strategies were compared head to head, no significant differences for improving SVR were identified.

Table 51: SVR Genotype 3 Treatment-Experienced Patients Without Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.47 (1.32 to 1.59)	28.43 (19.53 to 34.98)
DCV12 + SOF12		1.54 (1.31 to 1.67)	33.24 (18.76 to 39.26)
SOF12 + PR12		1.38 (0.88 to 1.62)	23.40 (–7.29 to 37.06)
DCV12 + SOF12	SOF24 + RBV24	1.05 (0.88 to 1.18)	4.66 (–10.76 to 14.60)
SOF12 + PR12		0.94 (0.60 to 1.13)	–4.92 (–36.25 to 11.22)
SOF12 + PR12	DCV12 + SOF12	0.90 (0.57 to 1.12)	–9.18 (–40.40 to 9.56)
Random Effect Model	Residual Deviance	9.206 vs. 10 data points	
	Deviance Information Criteria	59.551	
Fixed Effect Model	Residual Deviance	9.193 vs. 10 data points	
	Deviance Information Criteria	59.126	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Sensitivity Analysis

Sensitivity analyses were conducted to include the BOSON study[26] comparing SOF24 + RBV24 against SOF12 + PR12. Compared with PR48, all treatments (including SOF12 + PR12) significantly improved SVR. No significant improvements in SVR were found when the DAA regimens were compared with each other.

Subgroups — Baseline HCV RNA Level

No data were available for genotype 3 treatment-experienced patients based on their baseline HCV RNA level.

HIV-Coinfected Patients

Data were insufficient to perform NMAs for patients with genotype 3 infection coinfected with HIV. A single study reported data on SOF24 +RBV24 (SVR rate 91% in 51 patients). Two studies reported SOF24 + RBV24 in treatment-experienced patients with CHC genotype 3 infection and HIV coinfection (SVR rate 86% to 94% in 66 patients).

Genotype 4

Four studies[36,56,65,74] reported data for patients with genotype 4 CHC infection. One of the four included studies was an RCT.[36] The remaining three studies[56,65,74] reported data for single, uncontrolled treatment arms. In the absence of trials comparing PR48 with DAA-containing regimens, the PR48 reference data for genotype 4 patients was incorporated into the analysis for treatment-naive patients (all patients, and patients with cirrhosis or patients without cirrhosis) from a meta-analysis by Yee 2014[35] located using a supplemental literature search. The study aimed to evaluate treatment outcome and host and viral factors on SVR in genotype 4 patients treated with PR in a systematic and quantitative manner. Due to the lack of specific data on patients with cirrhosis, the PR control rate for treatment-naive patients with cirrhosis is based on the data from Yee et al. for patients with METAVIR score of F3/F4.

For treatment-experienced patients, SOF12 + RBV12 was considered the reference treatment based on clinical considerations.

During the course of this review, an additional, emerging regimen was identified as being of interest for patients with genotype 4 CHC infection without cirrhosis (regardless of treatment experience). PAR/RIT12 + OMB12 + RBV12 was submitted to CDR as a pre-NOC submission, and received NOC in October 2015.[112] Sensitivity analyses were therefore carried out to incorporate the only trial (PEARL-I) that has studied this regimen in the NMA.[113]

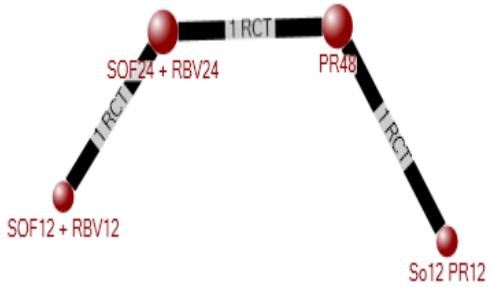
Treatment-Naive Patients

All Patients

Three studies[36,65,74] reported SVR12[65,74] and SVR24[36] rates in treatment-naive patients with genotype 4 infection. One of the studies[36] was a two-arm RCT comparing SOF24 + RBV24 directly to SOF12 + RBV12. Two of the studies[65,74] were single-arm studies of SOF24 + RBV24[74] and SOF12 + PR12.[65] Regimens of interest in this review for genotype 4 infection for which no evidence was identified for treatment-naive patients were SOF12 + LDV12 (which is not currently indicated for genotype 4, but is guideline-recommended[1]) and DCV12 + ASU12 + PR12. The rate of SVR12 for the reference treatment PR48 was 0.52 (95% CrI, 0.50 to 0.53).

All three studies, involving a total of 87 treatment-naive patients, were included in the NMA. Overall, four different treatment strategies were considered, providing for one direct treatment comparison (based on 1 two-arm study) and two treatment estimates based on single-arm studies. The evidence network for this outcome is displayed in Figure 24.

FIGURE 24: SVR GENOTYPE 4 TREATMENT-NAIVE PATIENTS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF and So = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 52. Compared with PR48, SOF24 + RBV24 and SOF12 + PR12 significantly improved SVR, whereas SOF12 + RBV12 was not significantly different from PR48 for improving SVR.

When the individual treatment strategies were compared head to head, SOF12 + PR12 was significantly better than SOF12 + RBV12 for improving SVR.

Table 52: SVR Genotype 4 Treatment-Naive Patients — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + RBV12	PR48	0.99 (0.10 to 1.82)	–0.46 (–46.72 to 42.33)
SOF24 + RBV24		1.63 (1.18 to 1.84)	32.49 (9.45 to 43.41)
SOF12 + PR12		1.85 (1.57 to 1.95)	44.27 (29.60 to 48.25)
SOF24 + RBV24	SOF12 + RBV12	1.60 (0.91 to 15.18)	30.79 (–8.01 to 78.36)
SOF12 + PR12		1.85 (1.00 to 18.78)	43.32 (–0.27 to 91.57)
SOF12 + PR12	SOF24 + RBV24	1.13 (0.93 to 1.55)	11.12 (–6.05 to 33.72)
Random Effect Model	Residual Deviance	3.976 vs. 4 data points	
	Deviance Information Criteria	19.486	
Fixed Effect Model	Residual Deviance	3.899 vs. 4 data points	
	Deviance Information Criteria	19.339	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of genotype 4 treatment-naive patients, a total of 37 additional patients reported in two additional studies[54,100] were included in the NMA. Three new treatments were added to the evidence network. No significant differences were found when the emerging treatments were added to the network (ELB12 [20 mg] + GRZ12, DCV12 + ASU12 + BEC12 [75 mg b.i.d.], DCV12 + ASU12 + BEC12 [150 mg b.i.d.]).

Sensitivity Analysis — PEARL-I

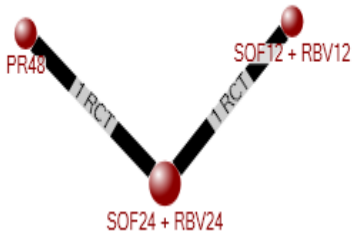
When data from PEARL-I[113] were added to the network of genotype 4 treatment-naive patients, a total of 42 additional patients were included in the NMA. The rate of SVR12 for the reference treatment PR48 was 0.52 (95% CrI, 0.51 to 0.53). In treatment-naive patients without cirrhosis, PAR/RIT12 + OMB12 + RBV12 significantly increased SVR compared with PR48 and SOF12 + RBV12. There was no significant improvement in SVR when PAR/RIT12 + OMB12 + RBV12, SOF24 + RBV24 or SOF12 + PR12 were compared.

Patients With Cirrhosis

Two studies[36,74] reported SVR12[74] and 24[36] rates in genotype 4 treatment-naive patients with cirrhosis. One of the studies[36] was a two-arm RCT comparing SOF24 + RBV24 directly to SOF12 + RBV12 and one was a single-arm study[74] of SOF24 + RBV24 with no comparator. The rate of SVR12 for the reference treatment PR48 was 0.38 (95% CrI, 0.36 to 0.41).

Both studies of treatment-naive genotype 4 patients (n = 14) with cirrhosis were included in the NMA. Overall, three different treatment strategies were considered, providing for one direct treatment comparison (based on 1 two-arm study) and one treatment estimate based on a single-arm study. The evidence network for this outcome is displayed in Figure 25.

FIGURE 25: SVR GENOTYPE 4 TREATMENT-NAIVE PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model of all treatments compared with PR48 and each other are presented in Table 53. Compared with PR48, SOF24 + RBV24 significantly improved SVR in genotype 4 treatment-naive cirrhotic patients, whereas SOF12 + RBV12 was not significantly different from PR48 for improving SVR. When the individual treatment strategies were compared head to head, SOF24 + RBV24 and SOF12 + RBV12 were not significantly different from one another.

Table 53: SVR Genotype 4 Treatment-Naive Patients With Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + RBV12	PR 48	0.75 (0.02 to 2.46)	–9.58 (–37.61 to 55.50)
SOF24 + RBV24		2.27 (1.36 to 2.65)	48.43 (13.78 to 60.93)
SOF24 + RBV24	SOF12 + RBV12	2.88 (0.95 to 107.80)	52.51 (–4.03 to 90.91)
Random Effect Model	Residual Deviance	3.692 vs. 4 data points	
	Deviance Information Criteria	14.418	
Fixed Effect Model	Residual Deviance	3.603 vs. 4 data points	
	Deviance Information Criteria	14.252	

CrI = credible interval; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

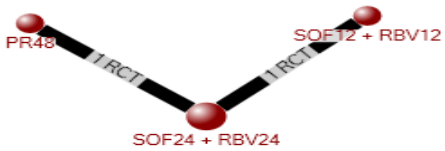
Patients Without Cirrhosis

Two studies[36,74] reported SVR12[74] and SVR24[36] rates in genotype 4 treatment-naive patients without cirrhosis. One of the studies[36] was a two-arm RCT comparing SOF24 + RBV24 directly to SOF12 + RBV12 and one was a single-group study[74] of SOF24 + RBV24 with no comparator. There were no specific data for SOF12 + PR12 in treatment-naive patients with cirrhosis. The rate of SVR12 for the reference treatment PR48 was 0.65 (95% CrI, 0.63 to 0.67).

Both studies of treatment-naive genotype 4 patients without cirrhosis were included in the NMA. Overall, three different treatment strategies were considered, providing for one direct treatment comparison (based on 1 two-arm study) and one treatment estimate based on a single-arm study. The evidence network for this outcome is displayed in Figure 26.

The results of the NMA between different treatment strategies are provided in Table 54. There were no statistically significant differences between any of the treatment strategies considered (i.e., SOF12 + RBV12 and SOF24 + RBV24) when compared with PR48 or with one another.

FIGURE 26: SVR GENOTYPE 4 TREATMENT-NAIVE PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK



PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

Table 54: SVR Genotype 4 Treatment-Naive Patients Without Cirrhosis — Relative Relative Risks and Risk Differences for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + RBV12	PR48	1.17 (0.16 to 1.52)	10.83 (–54.53 to 33.56)
SOF24 + RBV24		1.28 (0.87 to 1.47)	17.90 (–8.43 to 30.29)
SOF24 + RBV24	SOF12 + RBV12	1.08 (0.75 to 7.34)	6.36 (–22.42 to 69.09)
Random Effect Model	Residual Deviance	3.781 vs. 4 data points	
	Deviance Information Criteria	17.861	
Fixed Effect Model	Residual Deviance	3.818 vs. 4 data points	
	Deviance Information Criteria	17.935	

RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Sensitivity Analysis — SOF12 + PR12

SOF12 + PR 12 is indicated for all patients with CHC genotype 4 infection regardless of treatment experience or cirrhosis status; however, the available data from the only study for this regimen in treatment-naive patients (i.e., NEUTRINO) were not stratified by cirrhosis

status. Because the majority of patients in NEUTRINO did not have cirrhosis, a sensitivity analysis was performed in which the overall SVR data from patients with genotype 4 infection from NEUTRINO were applied to the NMA of patients without cirrhosis, thereby allowing for inclusion of SOF12 + PR12 in the NMA. The rate of SVR12 for the reference treatment PR48 was 0.65 (95% CrI, 0.63 to 0.67). SOF12 + PR12 was significantly better in terms of SVR12 compared with PR48, but there were no significant differences between SOF12 + PR12 and either SOF12 + RBV12 or SOF24 + RBV24.

Sensitivity Analysis — PEARL-I

When data from PEARL-I[113] were added to the network of genotype 4 treatment-naive patients, a total of 42 additional patients were included in the NMA. The rate of SVR12 for the reference treatment PR48 was 0.65 (95% CrI, 0.63 to 0.67). PAR/RIT12 + OMB12 + RBV12 was significantly better in terms of SVR compared with PR48. There was no significant improvement in SVR when PAR/RIT12 + OMB12 + RBV12, SOF12 + RBV12, or SOF24 + RBV24 were compared.

Subgroups — Treatment-Naive

Viral Load at Baseline > 1,000,000 IU/mL

The evidence network for SVR12 in treatment-naive genotype 4 patients with viral load at baseline > 1,000,000 IU/mL included two studies[36,74] and a total of 32 patients. Overall, two treatment regimens were considered, providing for one direct treatment comparison (based on 1 two-arm study) and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment SOF12 + RBV12 was 0.72 (95% CrI, 0.47 to 0.90).

The results of the random effects NMA model of the treatment strategies are provided in Table 55. Only two treatment strategies were under consideration, SOF24 + RBV24 and SOF12 + RBV12. There was no significant difference between these treatments in SVR.

Table 55: SVR Genotype 4 Treatment-Naive Patients With Viral Load > 1,000,000 IU/mL — Relative Risk and Risk Difference for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	SOF12 + RBV12	1.13 (0.79 to 1.77)	9.40 (–17.38 to 37.76)
Random Effect Model	Residual Deviance	3.409 vs. 4 data points	
	Deviance Information Criteria	15.435	
Fixed Effect Model	Residual Deviance	3.446 vs. 4 data points	
	Deviance Information Criteria	15.427	

CrI = credible interval; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Viral Load at Baseline < 1,000,000 IU/mL

The evidence network for SVR12 in treatment-naive genotype 4 patients with viral load at baseline < 1,000,000 IU/mL included two studies[36,74] and a total of 27 patients. Overall, two treatment regimens were considered, providing for one direct treatment comparison (based

on 1 two-arm study) and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment SOF12 + RBV12 was 0.86 (95% CrI, 0.64 to 0.97).

The results of the random effects NMA model of the treatment strategies are provided in Table 56. Only two treatment strategies were under consideration, SOF24 + RBV24 and SOF12 + RBV12. There was no significant difference between these treatments in SVR.

Table 56: SVR Genotype 4 Treatment-Naive Patients With Viral Load < 1,000,000 IU/mL — Relative Risk and Risk Difference for All Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	SOF12 + RBV12	1.09 (0.88 to 1.46)	7.51 (–11.20 to 29.78)
Random Effect Model	Residual Deviance	2.824 vs. 4 data points	
	Deviance Information Criteria	12.44	
Fixed Effect Model	Residual Deviance	2.777 vs. 4 data points	
	Deviance Information Criteria	12.375	

CrI = credible interval; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Treatment-Experienced Patients

All Patients

The evidence network for SVR12 in treatment-experienced genotype 4 patients included two studies[36,56] and a total of 76 patients (Figure 27). Overall, three different treatment regimens were considered, providing for one direct treatment comparison (based on 1 two-arm study), and one treatment estimate based on a single-arm study. Regimens of interest in this review for genotype 4 infection for which no evidence was identified for treatment-experienced patients were SOF12 + PR12 and SOF12 + LDV12 (the latter is not currently indicated for genotype 4, but is guideline-recommended[1]).

FIGURE 27: SVR GENOTYPE 4 TREATMENT-EXPERIENCED PATIENTS — EVIDENCE NETWORK

DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model of the treatment strategies are provided in Table 57. Compared with SOF12 + RBV12, the DCV24 + ASU24 + PR24 regimen significantly improved SVR in genotype 4 treatment-experienced patients. There was no statistically significant difference between SOF12 + RBV12 and SOF24 + RBV24 or between DCV24 + ASU24 + PR24 and SOF24 + RBV24.

Table 57: SVR Genotype 4 Treatment-Experienced Patients — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	SOF12 + RBV12	1.41 (0.85 to 2.04)	25.45 (–10.27 to 47.65)
DCV24 + ASU24 + PR24		1.55 (1.18 to 2.18)	33.59 (13.37 to 51.91)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.09 (0.87 to 1.77)	7.45 (–12.29 to 41.70)
Random Effect Model	Residual Deviance	3.976 vs. 4 data points	
	Deviance Information Criteria	19.486	
Fixed Effect Model	Residual Deviance	3.899 vs. 4 data points	
	Deviance Information Criteria	19.339	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with 'Treatment' compared with 'Reference'.

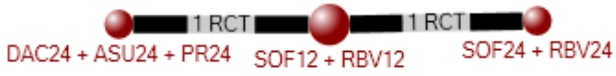
Sensitivity Analysis — PEARL-I

When data from PEARL-I[113] were added to the network of genotype 4 treatment-experienced patients, a total of 49 additional patients were included in the NMA. The rate of SVR12 for the reference treatment PR48 was 0.61 (95% CrI, 0.50 to 0.73). In treatment-experienced patients, PAR/RIT12 + OMB12 + RBV12 was significantly better in terms of SVR12 compared with SOF12 + RBV12. There was no significant improvement in SVR when PAR/RIT12 + OMB12 + RBV12, SOF24 + RBV24, and DCV24 + ASU24 + PR24 were compared.

Patients With Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 4 patients with cirrhosis included two studies[36,56] and a total of 28 participants (Figure 28). Overall, three different treatment regimens were considered, providing for a single direct treatment comparison (based on 1 two-arm study), and one treatment estimate based on a single-arm study.

FIGURE 28: SVR GENOTYPE 4 TREATMENT-EXPERIENCED PATIENTS WITH CIRRHOSIS — EVIDENCE NETWORK



DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model of the treatment strategies are provided in Table 58. Compared with SOF12 + RBV12, the DCV24 + ASU24 + PR24 regimen significantly improved SVR in genotype 4 treatment-experienced patients. There was no statistically significant difference between SOF12 + RBV12 and SOF24 + RBV24 or between DCV24 + ASU24 + PR24 and SOF24 + RBV24.

Table 58: SVR Genotype 4 Treatment-Experienced Patients With Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	SOF12 + RBV12	1.47 (0.57 to 3.51)	27.52 (–27.44 to 66.40)
DCV24 + ASU24 + PR24		1.63 (1.00 to 3.81)	35.84 (–0.01 to 70.23)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.06 (0.71 to 2.99)	5.35 (–26.95 to 63.55)
Random Effect Model	Residual Deviance	3.692 vs. 4 data points	
	Deviance Information Criteria	14.418	
Fixed Effect Model	Residual Deviance	3.603 vs. 4 data points	
	Deviance Information Criteria	14.252	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Patients Without Cirrhosis

The evidence network for SVR12 in treatment-experienced genotype 4 patients without cirrhosis included two studies[36,56] and a total of 48 participants (
Figure 29). Overall, three different treatment regimens were considered, providing for a single direct treatment comparison (based on one 2-arm study), and one treatment estimate based on a single-arm study.

FIGURE 29: SVR GENOTYPE 4 TREATMENT-EXPERIENCED PATIENTS WITHOUT CIRRHOSIS — EVIDENCE NETWORK

DAC = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.

The results of the random effects NMA model of the treatment strategies are provided in Table 59. Compared with SOF12 + RBV12, the DCV24 + ASU24 + PR24 regimen significantly improved SVR in genotype 4 treatment-experienced patients. There was no statistically significant difference between SOF12 + RBV12 and SOF24 + RBV24 or between DCV24 + ASU24 + PR24 and SOF24 + RBV24.

Table 59: SVR Genotype 4 Treatment-Experienced Patients Without Cirrhosis — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	SOF12 + RBV12	1.28 (0.68 to 1.91)	18.15 (–22.15 to 43.64)
DCV24 + ASU24 + PR24		1.49 (1.12 to 2.12)	30.91 (8.97 to 51.12)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.15 (0.87 to 2.13)	12.36 (–12.13 to 51.00)
Random Effect Model	Residual Deviance	3.781 vs. 4 data points	
	Deviance Information Criteria	17.861	
Fixed Effect Model	Residual Deviance	3.818 vs. 4 data points	
	Deviance Information Criteria	17.935	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Sensitivity Analysis — PEARL-I

When data from PEARL-I[113] were added to the network of genotype 4 treatment-experienced patients without cirrhosis, a total of 49 additional patients were included in the NMA. The rate of SVR12 for the reference treatment PR48 was 0.64 (95% CrI, 0.48 to 0.77). Compared with SOF12 + RBV12, PAR/RIT12 + OMB12 + RBV12 significantly improved SVR. There was no significant improvement in SVR when PAR/RIT12 + OMB12 + RBV12, SOF24 + RBV24, and DCV24 + ASU24 + PR24 were compared.

Subgroups — Treatment-Experienced

Viral Load at Baseline > 800,000 or 1,000,000 IU/mL

The evidence network for SVR12 in treatment-experienced genotype 4 patients with viral load at baseline > 800,000 or 1,000,000 IU/mL included two studies[36,56] and a total of 50 patients from 1 two-arm study and 1 single-arm study. Overall, three treatment regimens were considered, providing for one direct treatment comparison (based on 1 two-arm study) and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment SOF12 + RBV12 was 0.48 (95% CrI, 0.30 to 0.67).

The results of the random effects NMA model of the treatment strategies are provided in Table 60. Compared with SOF12 + RBV12 therapy, DCV24 + ASU24 + PR24 significantly improved SVR, whereas SOF24 + RBV24 was not significantly different from SOF12 + RBV12 for improved SVR.

When the individual treatment strategies were compared head to head, DCV24 + ASU24 + PR24 and SOF24 + RBV24 were not significantly different.

Table 60: SVR Genotype 4 Treatment-Experienced Patients With Viral Load > 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	SOF12 + RBV12	1.76 (0.93 to 2.93)	37.64 (–3.72 to 61.92)
DCV24 + ASU24 + PR24		1.96 (1.37 to 3.18)	46.86 (23.62 to 66.18)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.09 (0.86 to 2.02)	7.92 (–13.33 to 48.27)
Random Effect Model	Residual Deviance	3.684 vs. 4 data points	
	Deviance Information Criteria	17.244	
Fixed Effect Model	Residual Deviance	3.747 vs. 4 data points	
	Deviance Information Criteria	17.37	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly higher SVR rate with "Treatment" compared with "Reference".

Viral Load at Baseline < 800,000 or 1,000,000 IU/mL

The evidence network for SVR12 in treatment-experienced genotype 4 patients with viral load at baseline < 800,000 or 1,000,000 IU/mL included two studies[36,56] and a total of 26 patients from 1 two-arm study and one single-arm study. Overall, three treatment regimens were considered, providing for one direct treatment comparison (based on 1 two-arm study) and one treatment estimate based on a single-arm study. The rate of SVR12 for the reference treatment SOF12 + RBV12 was 0.88 (95% CrI, 0.60 to 0.98).

The results of the random effects NMA model of the treatment strategies are provided in Table 60. Compared with SOF12 + RBV12 therapy, SOF24 + RBV24 and DCV24 + ASU24 + PR24 were not significantly different for improved SVR.

When the individual treatment strategies were compared head to head, DCV24 + ASU24 + PR24 and SOF24 + RBV24 were not significantly different.

Table 61: SVR Genotype 4 Treatment-Experienced Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
SOF24 + RBV24	SOF12 + RBV12	1.02 (0.46 to 1.48)	1.57 (–47.73 to 30.03)
DCV24 + ASU24 + PR24		1.05 (0.61 to 1.55)	4.79 (–35.24 to 33.60)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.03 (0.58 to 2.40)	3.10 (–39.92 to 56.32)
Random Effect Model	Residual Deviance	3.341 vs. 4 data points	
	Deviance Information Criteria	12.853	
Fixed Effect Model	Residual Deviance	3.262 vs. 4 data points	

Table 61: SVR Genotype 4 Treatment-Experienced Patients With Viral Load < 800,000 or 1,000,000 IU/mL — Relative Risks and Risk Differences for All Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
	Deviance Information Criteria	12.716	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks.

Subgroups — HIV-Coinfected

Two studies reported results for SOF24 + RBV24 (one study, SVR rate 84% in 31 patients)[87] and SOF12 + PR12 (SVR rate 91% in 23 patients mixed genotype 1 to 4)[74] in genotype 4 treatment-naive patients with HIV coinfection. No studies reported on genotype 4 treatment-experienced patients with HIV coinfection. Data were insufficient for subgroup analyses.

Genotypes 5 and 6

Three studies in patients with CHC genotype 5 or 6 infection met the inclusion criteria for the systematic review.[59,65,100] The NEUTRINO study[65] was a single-arm interventional trial evaluating SOF12 + PR12 in treatment-naive patients with CHC genotypes 1, 4, 5, or 6 infection. Only one patient with genotype 5 and six patients with genotype 6 infection were included in this study. The ATOMIC study was an open-label, randomized trial evaluating SOF12 + PR12, SOF24 + PR24, and SOF12 + PR12 followed by SOF or SOF + RBV for an additional 12 weeks in treatment-naive patients with CHC genotypes 1, 4, 5, or 6 infection. Only five patients with genotype 6 infection were included in this study, all of whom were in the SOF24 + PR24 treatment arm. The C-EDGE study[100] was a blinded, randomized, placebo-controlled trial evaluating a fixed-dose combination of ELB12 (50 mg) + GRZ12 (100 mg) in treatment-naive patients with genotypes 1, 4, or 6 infection. Only 10 patients with genotype 6 were included in this study. It is not clear whether any of the patients with genotype 5 or 6 included in these studies had cirrhosis.

All six patients with genotype 6 and the single patient with genotype 5 who received SOF12 + PR12 in the NEUTRINO study achieved SVR12. All five patients with genotype 6 who received SOF24 + PR24 in the ATOMIC study achieved SVR12. Eight of the 10 (80%) patients with genotype 6 who received ELB12 + GRZ12 in C-EDGE achieved SVR12.

Liver Transplant Recipients — All Genotypes

Two studies reported SVR rates for liver transplant recipients with CHC infection. One study[46] reported SVR in a group of mixed genotype 1 (83%), 2 (0%), 3 (15%), 4 (3%), and mixed treatment experience (88% experienced) HCV patients (n = 40).[46] Patients were treated with SOF24 + RBV24 (n = 40) and 70% (90% confidence interval [CI]: 56% to 82%) achieved SVR at 12 weeks. Results were additionally presented by genotype and METAVIR score for those who achieved SVR12. Fifty-seven per cent of patients with genotype 1a, 21% of patients with genotype 1b or 3, and 0% of patients with genotype 4 achieved SVR12. Of the patients with a METAVIR score of F4 (considered cirrhotic), 36% achieved SVR12. Outcomes were not presented according to previous treatment status.[46]

A second study[61] reported SVR in adult liver transplant recipients with genotype 1 (85% genotype 1a) and mild or no fibrosis. Thirty-four participants received a once-daily dose of PAR/RIT24 + OMB24 + DAS24 ± RBV (RBV dose was at the discretion of the investigator). Of the 34 study participants, 33 had an SVR at post-treatment weeks 12 and 24, for a rate of 97% (95% CI, 85 to 100).

RESULTS: HARMS — ADVERSE EVENTS

Network meta-analyses were conducted for three harms outcomes: rash, anemia, and depression. Patient populations across all genotypes were analyzed according to treatment experience (naive or experienced). For each patient group, the relative risks based on the ORs from the NMA comparing each DAA treatment to PR48 are provided. Results for select head-to-head comparisons of the DAA treatment regimens are also presented. A full summary of random effects model results for each outcome is available in APPENDIX 11, along with estimated relative risks and absolute risks. Results from additional sensitivity analyses involving emerging treatment regimens are also discussed in context with the relevant patient population. Full NMA results for the sensitivity analyses are available in APPENDIX 12.

Rash

Treatment-Naive Patients

The evidence network for rash in treatment-naive patients included 26 studies[43,49,50,52,53,55,57-59,62,64,65,71,72,81,90,92-94,103,105-108] and a total of 6,678 patients. Overall, 21 different treatment regimens were considered, providing for 21 direct comparisons (based on 1 four-arm study and 15 two-arm studies), and 15 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of rash for the reference treatment PR48 was 0.18 (95% CrI, 0.15 to 0.22).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 62. Compared with PR48 dual therapy, SOF12 + LDV12, DCV24 + ASU24, and PAR/RIT12 + OMB12 + DAS12 were significantly associated with less rash in treatment-naive patients.

When the individual DAA treatment strategies were compared head to head:

- SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12, and DCV24 + ASU24 were significantly associated with less rash compared SOF12 + PR12, SIM12 + PR24-48 RGT, and PAR/RIT12 + OMB12 + DAS12 + RBV12.

Table 62: Rash — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	0.77 (0.08 to 2.72)	–4.22 (–17.46 to 31.63)
SOF12 + LDV12		0.26 (0.14 to 0.48)	–13.27 (–17.51 to –8.82)
SOF12 + PR12		0.80 (0.37 to 1.77)	–3.60 (–11.93 to 13.85)
SIM12 + PR24-48 RGT		1.12 (0.81 to 1.52)	2.15 (–3.61 to 9.16)

Table 62: Rash — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12		0.22 (0.09 to 0.53)	–14.03 (–18.22 to –8.34)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.72 (0.38 to 1.30)	–5.05 (–11.99 to 5.31)
DCV24 + ASU24		0.13 (0.05 to 0.32)	–15.69 (–19.48 to –11.41)
DCV12 + SOF12		0.37 (0.05 to 1.61)	–11.36 (–18.70 to 10.80)
SOF12 + LDV12	SOF24 + RBV24	0.34 (0.10 to 3.38)	–8.95 (–44.08 to 3.60)
SOF12 + PR12		1.08 (0.28 to 10.51)	1.00 (–31.94 to 21.13)
SIM12 + PR24-48 RGT		1.45 (0.39 to 14.60)	6.13 (–30.09 to 21.62)
PAR/RIT12 + OMB12 + DAS12		0.29 (0.06 to 2.99)	–9.63 (–46.10 to 4.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.95 (0.23 to 9.36)	–0.71 (–36.53 to 14.96)
DCV24 + ASU24		0.17 (0.03 to 2.01)	–11.31 (–47.86 to 1.73)
DCV12 + SOF12		0.51 (0.05 to 6.45)	–6.20 (–42.18 to 17.12)
SOF12 + PR12	SOF12 + LDV12	3.08 (1.82 to 5.37)	9.82 (3.33 to 24.82)
SIM12 + PR24-48 RGT		4.27 (2.13 to 8.55)	15.46 (8.42 to 23.42)
PAR/RIT12 + OMB12 + DAS12		0.85 (0.28 to 2.39)	–0.71 (–5.27 to 5.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.74 (1.42 to 5.22)	8.19 (2.36 to 17.36)
DCV24 + ASU24		0.49 (0.15 to 1.55)	–2.33 (–6.68 to 1.80)
DCV12 + SOF12		1.41 (0.18 to 6.40)	1.89 (–5.23 to 23.67)
SIM12 + PR24-48 RGT	SOF12 + PR12	1.39 (0.59 to 3.19)	5.62 (–12.76 to 16.56)
PAR/RIT12 + OMB12 + DAS12		0.27 (0.08 to 0.84)	–10.48 (–27.88 to –1.24)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.89 (0.39 to 2.03)	–1.52 (–17.64 to 8.82)
DCV24 + ASU24		0.16 (0.04 to 0.55)	–12.15 (–29.60 to –3.45)
DCV12 + SOF12		0.45 (0.05 to 2.30)	–7.46 (–26.31 to 13.98)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR24-48 RGT	0.20 (0.07 to 0.50)	–16.19 (–24.21 to –8.29)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.65 (0.31 to 1.25)	–7.13 (–17.10 to 4.30)
DCV24 + ASU24		0.12 (0.05 to 0.27)	–17.82 (–24.81 to –11.99)
DCV12 + SOF12		0.33 (0.05 to 1.52)	–13.31 (–23.76 to 9.47)

Table 62: Rash — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	3.26 (1.12 to 9.73)	8.90 (0.92 to 19.48)
DCV24 + ASU24		0.59 (0.15 to 2.21)	–1.59 (–7.40 to 2.58)
DCV12 + SOF12		1.69 (0.19 to 9.73)	2.65 (–5.71 to 25.00)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.18 (0.06 to 0.55)	–10.54 (–21.08 to –3.47)
DCV12 + SOF12		0.52 (0.07 to 2.32)	–5.96 (–17.83 to 15.11)
DCV12 + SOF12	DCV24 + ASU24	2.82 (0.34 to 17.84)	4.21 (–2.49 to 26.70)
Random Effect Model	Residual Deviance	62.47 vs. 64 data points	
	Deviance Information Criteria	371.62	
Fixed Effect Model	Residual Deviance	63.66 vs. 64 data points	
	Deviance Information Criteria	371.027	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with "Treatment" compared with "Reference". Red shading indicates statistically significantly higher risk of the adverse event with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of treatment-naive patients, a total of 341 additional patients reported in three studies[63,89] were included in the NMA. Six new treatments were added to the evidence network. The rate of SVR12 for the reference treatment PR48 dual therapy was 0.18 (95% CrI, 0.15 to 0.22).The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, none of the emerging treatments was associated with a significantly decreased risk of rash. When the emerging DAA strategies were compared head to head with the existing DAA treatments, ELB/GRZ18 (50 mg q.d.) + RBV18 was significantly associated with more rash than SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12, DCV24 + ASU24, and SOF24 + RBV (low-dose) 24. None of the ELB + GRZ treatment durations (± RBV) were significantly associated with more or less rash when compared with the rest of the treatments in the network.

Treatment-Experienced Patients

The evidence network for rash in treatment-experienced patients included 20 studies[32,42,44,52,53,56,66,68,69,72,80,84,86,93,95,101,102,104,110,111] and a total of 3,833 patients. Overall, 17 different treatment regimens were considered, providing for 12 direct comparisons (based on 1 four-arm study and 6 two-arm studies), and 15 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of rash for the reference treatment PR48 was 0.13 (95% CrI, 0.11 to 0.16).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 63. Compared with PR48 dual therapy, SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12 ± RBV12 were significantly associated with less rash in treatment-experienced patients.

When the individual DAA treatment strategies were compared head to head:

- SOF 12+ LDV12 was significantly associated with less rash compared with SOF12 + PR12, SIM12 + PR24-48 RGT, SOF24 + RBV24, and DCV24 + ASU24 +PR24.
- PAR/RIT12 + OMB12 + DAS12 was significantly associated with less rash compared with SOF12 + PR12, SIM12 + PR24-48 RGT, DCV24 + ASU24 + PR24, and PAR/RIT12 + OMB12 + DAS12 + RBV12.
- PAR/RIT12 + OMB12 + DAS12 + RBV12 and DCV24 + ASU24 was significantly associated with less rash compared with DCV24 + ASU24 + PR24.
- DCV24 + ASU24 was significantly associated with less rash compared with SOF12 + PR12 and DCV24 + ASU24 + PR24.

Table 63: Rash — All Genotype Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SIM12 + SOF12	PR48	0.58 (0.04 to 3.80)	–5.40 (–13.58 to 35.98)
SOF12 + LDV12		0.17 (0.04 to 0.56)	–10.87 (–14.21 to –5.41)
SIM12 + PR24-48 RGT		1.02 (0.44 to 2.12)	0.26 (–7.30 to 14.31)
SOF24 + RBV24		1.26 (0.27 to 3.66)	3.43 (–9.84 to 33.55)
PAR/RIT12 + OMB12 + DAS12		0.06 (0.00 to 0.36)	–12.27 (–15.22 to –7.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.61 (0.24 to 1.81)	–5.16 (–10.50 to 10.35)
DCV24 + ASU24		0.27 (0.07 to 0.88)	–9.58 (–13.58 to –1.46)
DCV24 + ASU24 + PR24		2.62 (0.99 to 4.94)	21.54 (–0.09 to 48.90)
SOF12 + PR12		1.39 (0.64 to 2.81)	5.19 (–5.00 to 21.81)
SOF12 + LDV12	SIM12 + SOF12	0.28 (0.03 to 5.20)	–5.26 (–46.40 to 3.50)
SIM12 + PR24-48 RGT		1.76 (0.23 to 27.34)	5.34 (–35.69 to 21.49)
SOF24 + RBV24		2.08 (0.21 to 35.67)	7.28 (–32.48 to 36.78)
PAR/RIT12 + OMB12 + DAS12		0.09 (0.00 to 2.75)	–6.63 (–48.00 to 1.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.08 (0.13 to 18.41)	0.61 (–39.91 to 16.48)
DCV24 + ASU24		0.46 (0.05 to 7.36)	–3.88 (–44.58 to 6.58)
DCV24 + ASU24 + PR24		4.36 (0.70 to 56.71)	24.14 (–12.64 to 50.17)
SOF12 + PR12		2.39 (0.32 to 37.63)	9.81 (–31.06 to 28.54)
SIM12 + PR24-48 RGT	SOF12 + LDV12	6.20 (1.39 to 28.60)	11.14 (1.93 to 24.81)
SOF24 + RBV24		7.46 (1.18 to 39.57)	14.18 (0.63 to 43.63)
PAR/RIT12 + OMB12 +		0.34 (0.02 to 3.14)	–1.33 (–6.18 to 2.48)

Table 63: Rash — All Genotype Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DAS12			
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.72 (0.82 to 20.06)	5.75 (–0.82 to 20.49)
DCV24 + ASU24		1.58 (0.28 to 9.21)	1.22 (–3.87 to 8.90)
DCV24 + ASU24 + PR24		15.60 (3.44 to 64.06)	32.36 (9.94 to 59.19)
SOF12 + PR12		8.50 (1.94 to 37.97)	16.09 (4.97 to 31.95)
SOF24 + RBV24	SIM12 + PR24-48 RGT	1.23 (0.23 to 4.71)	2.94 (–16.29 to 33.78)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.43)	–12.56 (–26.15 to –3.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.60 (0.18 to 2.42)	–5.25 (–19.30 to 11.27)
DCV24 + ASU24		0.26 (0.05 to 1.11)	–9.68 (–24.07 to 0.88)
DCV24 + ASU24 + PR24		2.54 (0.76 to 7.29)	20.70 (–4.95 to 49.38)
SOF12 + PR12		1.36 (0.48 to 3.96)	4.83 (–12.14 to 22.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	11.19(1.72 to 174.90)	7.10 (1.62 to 21.47)
DCV24 + ASU24		4.77 (0.49 to 91.28)	2.59 (–1.72 to 10.24)
DCV24 + ASU24 + PR24		45.32 (5.66 to 810.90)	33.83 (11.37 to 60.52)
SOF12 + PR12		24.92 (3.35 to 469.80)	17.50 (6.92 to 33.32)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.43 (0.08 to 1.85)	–4.33 (–19.05 to 4.05)
DCV24 + ASU24 + PR24		4.21 (1.00 to 12.84)	26.15 (0.05 to 53.47)
SOF12 + PR12		2.29 (0.61 to 7.39)	10.12 (–7.53 to 26.91)
DCV24 + ASU24 + PR24	DCV24 + ASU24	9.49 (2.81 to 35.25)	30.70 (9.63 to 56.42)
SOF12 + PR12		5.22 (1.26 to 24.91)	14.62 (2.24 to 31.14)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.54 (0.20 to 1.76)	–16.01 (–45.56 to 11.79)
Random Effect Model	Residual Deviance	49.87 vs. data points	
	Deviance Information Criteria	278.127	
Fixed Effect Model	Residual Deviance	52.35 vs. data points	
	Deviance Information Criteria	278.13	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with “Treatment” compared with “Reference”. Red shading indicates statistically significantly higher risk of the adverse event with “Treatment” compared with “Reference”.

Emerging Treatments

When emerging treatments were added to the network of treatment-experienced patients, a total of 130 patients reported in one four-arm study[63] were included in the NMA. Four new

treatments were added to the evidence network (ELB [50 mg] + GRZ for 12 or 18 weeks ± RBV). The rate of SVR12 for the reference treatment PR48 was 0.14 (95% CrI, 0.11 to 0.16).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, ELB18 + GRZ18 was significantly associated with less rash. When the ELB + GRZ treatment strategies were compared head to head with the existing DAA treatments, ELB18 + GRZ18 was significantly associated with less rash when compared with SOF12 + LDV12 ± RBV12, SOF24 + LDV24 + RBV24, SOF12+ SIM12 + RBV12, SOF24 + RBV24, DCV24 + ASU24 + PR24, and SOF12 + PR12.

Anemia

Treatment-Naive Patients

The evidence network for anemia in treatment-naive patients included 26 studies[43,49,50,52,53,55,58,59,62,64,65,67,71,81,87,90,92-94,103,105-108] and a total of 6,517 patients. Overall, 20 different treatment regimens were considered, providing for 22 direct comparisons (based on 1 four-arm study and 16 two-arm studies), and 14 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of anemia for the reference treatment PR48 was 0.21 (95% CrI, 0.18 to 0.25).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 64. Compared with PR48, SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12, and DCV12 + SOF12 were significantly associated with less anemia in treatment-naive patients.

When the individual DAA treatment strategies were compared head to head:
- SOF12+ LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12, and DCV12 + SOF12 were significantly associated with less anemia compared with SOF12 + PR12.
- SOF12+ LDV12, PAR/RIT12 + OMB12 + DAS12, and DCV12 + SOF12 were significantly associated with less anemia compared to SOF24 + RBV24 and SIM12 + PR24-48 RGT.
- SOF12+ LDV12 was significantly associated with less anemia compared with PAR/RIT12 + OMB12 + DAS12 ± RBV12.

Table 64: Anemia — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	1.26 (0.48 to 2.53)	5.59 (–11.27 to 31.50)
SOF12 + LDV12		0.06 (0.02 to 0.13)	–20.09 (–23.39 to –16.83)
SOF12 + PR12		1.49 (0.80 to 2.45)	10.48 (–4.31 to 30.04)
SIM12 + PR24-48 RGT		0.82 (0.59 to 1.12)	–3.76 (–9.13 to 2.45)
PAR/RIT12 + OMB12 + DAS12		0.35 (0.14 to 0.75)	–13.93 (–18.88 to –5.35)

Table 64: Anemia — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.38 (0.15 to 0.84)	–13.11 (–19.30 to –3.33)
DCV12 + SOF12		0.09 (0.01 to 0.70)	–19.18 (–23.34 to –6.47)
SOF12 + LDV12	SOF24 + RBV24	0.04 (0.01 to 0.16)	–25.66 (–51.35 to –9.02)
SOF12 + PR12		1.19 (0.48 to 3.35)	5.00 (–23.80 to 29.01)
SIM12 + PR24-48 RGT		0.65 (0.31 to 1.79)	–9.38 (–35.46 to 8.61)
PAR/RIT12 + OMB12 + DAS12		0.27 (0.09 to 0.94)	–19.30 (–45.36 to –0.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.31 (0.10 to 1.01)	–18.37 (–44.74 to 0.18)
DCV12 + SOF12		0.07 (0.00 to 0.71)	–24.12 (–50.05 to –4.23)
SOF12 + PR12	SOF12 + LDV12	26.17 (11.76 to 65.24)	30.61 (16.20 to 49.42)
SIM12 + PR24-48 RGT		14.89 (6.03 to 37.43)	16.28 (11.11 to 22.56)
PAR/RIT12 + OMB12 + DAS12		6.24 (1.82 to 20.88)	6.10 (1.47 to 14.89)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.78 (2.62 to 18.20)	6.88 (2.30 to 15.93)
DCV12 + SOF12		1.53 (0.08 to 14.99)	0.59 (–1.73 to 13.72)
SIM12 + PR24-48 RGT	SOF12 + PR12	0.56 (0.33 to 1.01)	–14.08 (–32.69 to 0.25)
PAR/RIT12 + OMB12 + DAS12		0.23 (0.08 to 0.63)	–24.04 (–43.86 to –7.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.26 (0.10 to 0.63)	–23.17 (–42.64 to –7.45)
DCV12 + SOF12		0.06 (0.00 to 0.51)	–29.04 (–49.09 to –10.32)
PAR/RIT12 + OMB12 + DAS12	SIM12 + PR24-48 RGT	0.42 (0.17 to 0.98)	–10.10 (–17.71 to –0.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.19 to 1.08)	–9.24 (–17.23 to 1.19)
DCV12 + SOF12		0.10 (0.01 to 0.88)	–15.18 (–22.37 to –2.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.11 (0.33 to 3.72)	0.78 (–9.07 to 11.28)
DCV12 + SOF12		0.25 (0.01 to 2.54)	–5.04 (–14.02 to 8.02)
DCV12 + SOF12	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.23 (0.01 to 1.91)	–5.67 (–15.39 to 6.10)

Table 64: Anemia — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
Random Effect Model	Residual Deviance	62.48 vs. 64 data points	
	Deviance Information Criteria	367.889	
Fixed Effect Model	Residual Deviance	63.13 vs. 64 data points	
	Deviance Information Criteria	366.667	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with "Treatment" compared with "Reference". Red shading indicates statistically significantly higher risk of the adverse event with "Treatment" compared with "Reference".

Emerging Treatments

When emerging treatments were added to the network of treatment-naive patients, a total of 657 additional patients reported in two studies[63,89,100] were included in the NMA. Six new GRZ + ELB treatments were added to the evidence network. The rate of anemia for the reference treatment PR48 was 0.21 (95% CrI, 0.18 to 0.24).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, ELB12 (20 mg) + GRZ12 and ELB12 (50 mg) + GRZ12 were significantly associated with less anemia than PR48 in treatment-naive patients. When the individual DAA treatment strategies were compared head to head:

- ELB12 (20 mg) + GRZ12 was significantly associated with less anemia compared with SOF12 + RBV12, SOF24 + RBV24, SOF12 + PR12, SOF12 PR24-48 RGT, and SIM12 + PR24-48 RGT
- ELB12 (50 mg) + GRZ12 was significantly associated with less anemia compared with SOF24 + RBV24, SOF12 + PR12, and SIM12 + PR24-48 RGT
- ELB18 (50 mg) + GRZ18 was significantly associated with less anemia compared with ELB12 (20 mg) + GRZ12 + RBV12
- ELB12 (20 mg) + GRZ12 + RBV12 was significantly associated with more anemia compared with SOF12 + LDV12
- ELB18 (50 mg) + GRZ18 + RBV18 was significantly associated with more anemia compared with ELB12 (50 mg) + GRZ12, ELB18 (50 mg) + GRZ18, and SOF12 + LDV12.

Treatment-Experienced Patients

The evidence network for anemia in treatment-experienced patients included 17 studies[32,42,44,52,53,56,66,67,84,86,93,95,101,102,104,110,111] and a total of 3,572 patients. Overall, 14 different treatment regimens were considered, providing for 12 direct comparisons (based on 1 four-arm study and 6 two-arm studies), and 11 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of anemia for the reference treatment PR48 was 0.19 (95% CrI, 0.16 to 0.22).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 65. Compared with PR48, SOF12 + LDV12, PAR/RIT12 + OMB12 + DAS12 ± RBV12, and DCV24 + ASU24 + PR24 were significantly associated with less anemia in treatment-experienced patients.

When the individual DAA treatment strategies were compared head to head:

- SOF 12+ LDV12 and PAR/RIT12 + OMB12 + DAS12 were significantly associated with less anemia compared with SOF12 + PR12, SIM12 + PR24-48 RGT, SOF24 + RBV24, PAR/RIT12 + OMB12 + DAS12 + RBV12, and DCV24 + ASU24 + PR24
- PAR/RIT12 + OMB12 + DAS12 + RBV12 and DCV24 + ASU24 + PR24 were significantly associated with less anemia compared with SOF12 + PR12.

Table 65: Anemia — All Genotype Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + LDV12	PR48	0.02 (0.00 to 0.11)	–18.42 (–21.51 to –15.38)
SIM12 + PR24-48 RGT		0.83 (0.45 to 1.48)	–3.14 (–10.96 to 8.88)
SOF24 + RBV24		0.41 (0.08 to 1.35)	–11.16 (–18.49 to 6.46)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.07)	–18.73 (–21.80 to –15.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.11 to 0.66)	–13.73 (–18.13 to –6.17)
DCV24 + ASU24 + PR24		0.28 (0.10 to 0.79)	–13.67 (–18.43 to –3.92)
SOF12 + PR12		1.02 (0.56 to 1.69)	0.30 (–8.74 to 12.65)
SIM12 + PR24-48 RGT	SOF12 + LDV12	33.92 (6.74 to 314.90)	15.25 (7.66 to 27.26)
SOF24 + RBV24		16.58 (1.77 to 180.50)	7.14 (0.75 to 24.60)
PAR/RIT12 + OMB12 + DAS12		0.37 (0.03 to 7.00)	–0.25 (–1.76 to 0.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12		11.29 (1.98 to 111.90)	4.59 (1.29 to 11.93)
DCV24 + ASU24 + PR24		11.36 (1.85 to 120.10)	4.63 (0.98 to 14.21)
SOF12 + PR12		40.96 (8.35 to 384.60)	18.70 (10.16 to 30.68)
SOF24 + RBV24	SIM12 + PR24-48 RGT	0.48 (0.09 to 1.94)	–7.93 (–21.61 to 11.18)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.10)	–15.57 (–27.49 to –8.06)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.33 (0.12 to 1.00)	–10.47 (–22.75 to –0.03)
DCV24 + ASU24 + PR24		0.33 (0.10 to 1.12)	–10.39 (–23.00 to 1.36)
SOF12 + PR12		1.22 (0.53 to 2.72)	3.36 (–11.55 to 17.57)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	0.02 (0.00 to 0.30)	–7.45 (–24.88 to –1.19)

Table 65: Anemia — All Genotype Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.68 (0.16 to 4.16)	–2.39 (–19.81 to 6.79)
DCV24 + ASU24 + PR24		0.69 (0.14 to 4.83)	–2.31 (–19.49 to 8.93)
SOF12 + PR12		2.48 (0.64 to 14.00)	11.16 (–8.13 to 25.42)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	29.04 (3.23 to 418.50)	4.91 (1.79 to 12.11)
DCV24 + ASU24 + PR24		29.55 (2.94 to 458.60)	4.94 (1.41 to 14.47)
SOF12 + PR12		107.60 (13.04 to 1289.00)	19.02 (10.52 to 30.92)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.00 (0.30 to 3.45)	–0.01 (–6.88 to 9.06)
SOF12 + PR12		3.68 (1.27 to 10.29)	13.85 (2.75 to 26.31)
SOF12 + PR12	DCV24 + ASU24 + PR24	3.63 (1.10 to 11.84)	13.67 (1.15 to 26.59)
Random Effect Model	Residual Deviance	37.06 vs. 38 data points	
	Deviance Information Criteria	223.003	
Fixed Effect Model	Residual Deviance	37.64 vs. 38 data points	
	Deviance Information Criteria	222.563	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with “Treatment” compared with “Reference”. Red shading indicates statistically significantly higher risk of the adverse event with “Treatment” compared with “Reference”.

Emerging Treatments

When emerging treatments were added to the network of treatment-experienced patients, a total of 407 additional patients reported in two studies[51,63] were included in the NMA. Five new treatments were added to the evidence network. The rate of anemia for the reference treatment PR48 was 0.19 (95% CrI, 0.16 to 0.21).

The results of the random effects NMA model of the emerging treatments compared with PR48 and each other are presented in APPENDIX 12.

Compared with PR48, ELB (50 mg) + GRZ 12 and 18 weeks were significantly associated with less anemia in treatment-experienced patients. When the individual DAA treatment strategies were compared head to head with the emerging treatment strategies:

- ELB12 (50 mg) + GRZ12 was significantly associated with less anemia compared with SOF24 + LDV24 + RBV24

- ELB12 (50 mg) + GRZ12 and ELB18 (50 mg) + GRZ18 were significantly associated with less anemia compared with SIM12 + PR24-48 RGT and SOF12 + PR12
- ELB12 (20 mg) + GRZ12 + RBV12, ELB12 (50 mg) + GRZ12 + RBV12, and ELB18 (50 mg) + GRZ18 + RBV18 were significantly associated with more anemia compared with SOF12 + LDV12 and PAR/RIT12 + OMB12 + DAS12.

Depression

Treatment-Naive Patients

The evidence network for depression in treatment-naive patients included 19 studies[43,52,53,55,59,62,64,65,71,72,87,90,92-94,105-108] and a total of 785 patients. Overall, 21 different treatment regimens were considered, providing for 17 direct comparisons (based on 1 four-arm study and 11 two-arm studies), and 11 treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of depression for the reference treatment PR48 was 0.14 (95% CrI, 0.11 to 0.17).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 66. Compared with PR48, SOF12 + LDV12 and DCV24 + ASU24 were significantly associated with less depression in treatment-naive patients.

When the individual DAA treatment strategies were compared head to head:
- SOF 12 + LDV12 were significantly associated with less depression compared with SOF12 + PR12, SIM12 + PR24-48 RGT, SOF24 + RBV24, DCV24 + ASU24, and DCV12 + SOF12
- Results for PAR/RIT12 + OMB12 + DAS12 + RBV12 should be considered in the context of the patient population, which consisted of injection-drug users on stable methadone treatment at high risk for comorbidities for depression, as well as the small sample size (n = 38).

Table 66: Depression — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF12 + LDV12	PR48	0.02 (0.00 to 0.10)	–13.46 (–16.51 to –10.51)
SOF12 + PR12		0.57 (0.21 to 1.53)	–5.87 (–11.74 to 6.88)
SIM12 + PR24-48 RGT		0.72 (0.42 to 1.28)	–3.76 (–8.47 to 3.78)
SOF24 + RBV24		0.78 (0.17 to 3.18)	–3.09 (–12.49 to 28.09)
DCV24 + ASU24		0.25 (0.07 to 0.92)	–10.14 (–14.08 to –1.08)
DCV12 + SOF12		0.51 (0.04 to 3.15)	–6.80 (–14.54 to 28.50)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.42 (0.08 to 1.53)	–7.98 (–13.52 to 7.25)
SOF12 + PR12	SOF12 + LDV12	29.89 (6.36 to 219.60)	7.52 (2.76 to 19.55)
SIM12 + PR24-48 RGT		39.33 (7.04 to 345.10)	9.65 (5.19 to 17.14)
SOF24 + RBV24		41.46 (4.06 to 513.70)	10.38 (1.88 to 40.74)

Table 66: Depression — All Genotype Treatment-Naive Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons			
Treatment	**Reference**	**RR (95% CrI)**	**RD % (95% CrI)**
DCV24 + ASU24		13.69 (1.67 to 147.00)	3.12 (0.47 to 12.14)
DCV12 + SOF12		25.70 (1.14 to 445.30)	6.61 (0.07 to 41.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		21.54 (2.09 to 261.00)	5.40 (0.63 to 20.78)
SIM12 + PR24-48 RGT	SOF12 + PR12	1.27 (0.46 to 3.63)	2.10 (–9.92 to 10.27)
SOF24 + RBV24		1.34 (0.22 to 7.69)	2.50 (–12.63 to 33.56)
DCV24 + ASU24		0.45 (0.09 to 2.02)	–4.15 (–16.22 to 5.05)
DCV12 + SOF12		0.86 (0.06 to 7.46)	–1.03 (–15.05 to 34.62)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.74 (0.11 to 3.42)	–1.91 (–14.87 to 13.28)
SOF24 + RBV24	SIM12 + PR24-48 RGT	1.07 (0.20 to 4.90)	0.64 (–11.24 to 31.85)
DCV24 + ASU24		0.35 (0.11 to 1.08)	–6.25 (–12.38 to 0.78)
DCV12 + SOF12		0.69 (0.05 to 4.71)	–2.95 (–13.66 to 32.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.57 (0.10 to 2.33)	–4.13 (–13.14 to 11.15)
DCV24 + ASU24	SOF24 + RBV24	0.33 (0.05 to 2.45)	–6.80 (–37.56 to 5.14)
DCV12 + SOF12		0.65 (0.03 to 7.20)	–3.03 (–35.16 to 30.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.53 (0.06 to 4.07)	–4.61 (–35.34 to 12.39)
DCV12 + SOF12	DCV24 + ASU24	1.97 (0.11 to 18.81)	3.18 (–7.65 to 37.99)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.63 (0.20 to 9.74)	2.04 (–7.45 to 17.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12	DCV12 + SOF12	0.82 (0.07 to 15.11)	–1.11 (–35.53 to 15.25)
Random Effect Model	Residual Deviance	53.05 vs. 48 data points	
	Deviance Information Criteria	267.581	
Fixed Effect Model	Residual Deviance	56.27 vs. 48 data points	
	Deviance Information Criteria	268.659	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with “Treatment” compared with “Reference”. Red shading indicates statistically significantly higher risk of the adverse event with “Treatment” compared with “Reference”.

Emerging Treatments

No studies reported depression outcomes in treatment-naive patients for the emerging treatments of interest in this review.

Treatment-Experienced Patients

The evidence network for depression in treatment-experienced patients included 11 studies[32,52,53,72,86,93,95,101,102,110,111] and a total of 2,260 patients. Overall, nine different treatment regimens were considered, providing for four direct comparisons (based on 4 two-arm studies), and eight treatment estimates based on single-arm studies. The NMA based on this evidence network was consistent (APPENDIX 11). The rate of rash for the reference treatment PR48 was 0.13 (95% CrI, 0.10 to 0.17).

The results of the random effects NMA model of selected treatment compared with PR48 and each other are presented in Table 67. Compared with PR48, SOF24 + RBV24, PAR/RIT12 + OMB12 + DAS12 + RBV12, and DCV24 + ASU24 were significantly associated with less depression in treatment-experienced patients.

When the individual DAA treatment strategies were compared head to head, there were no significant differences in depression.

Table 67: Depression — All Genotype Treatment-Experienced Patients — Relative Risks and Risk Differences for Selected Treatment Comparisons

Treatment	Reference	RR (95% CrI)	RD % (95% CrI)
SOF24 + RBV24	PR48	0.17 (0.01 to 0.99)	–10.65 (–15.36 to –0.15)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.07 to 0.93)	–9.42 (–14.25 to –0.89)
DCV24 + ASU24		0.11 (0.02 to 0.50)	–11.49 (–15.62 to –5.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + RBV24	1.63 (0.16 to 26.24)	1.20 (–9.19 to 10.16)
DCV24 + ASU24		0.67 (0.08 to 9.59)	–0.61 (–10.57 to 3.98)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.41 (0.05 to 3.19)	–1.94 (–10.56 to 3.45)
Random Effect Model	Residual Deviance	23.48 vs. 24 data points	
	Deviance Information Criteria	135.299	
Fixed Effect Model	Residual Deviance	23.98 vs. 24 data points	
	Deviance Information Criteria	135.244	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Numbers after each treatment indicate duration in weeks. Green shading indicates statistically significantly lower risk of the adverse event with “Treatment” compared with “Reference”.

Emerging Treatments

No studies reported depression outcomes in treatment-experienced patients for the emerging treatments of interest in this review.

Other Safety Events

In addition to rash, anemia, and depression, other safety events were considered. The data available and/or the frequency of these safety events were not sufficient for NMA.

Treatment-Naive Patients

The occurrence of other safety events, as reported in the studies included in the review, is reported in Table 68 for treatment-naive patients. In particular:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, hepatocellular carcinoma, and liver transplants were infrequently reported across all treatments
- Adverse events, fatigue, and pruritus were frequently reported across all treatments
- PR48 was often associated with harms, and
- SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

Table 68: Other Safety Events — All Genotype Treatment-Naive Patients — Frequency of Reporting

Safety	Range	Exceeds 10%	Exceeds 35%
Withdrawals — all causes	0 to 46%	PR48 (5) SOF12 + PR12 (2) SOF12 + RBV12 (2) SOF24 + RBV24 (3)	PR48 (3)
Withdrawals due to adverse events	0 to 1% Except 3% for PAR/RIT + OMB12 + DAS12 + RBV12 (1); 2% for SOF12 + PR12 (1)		
Discontinuations — all causes	0 to 68%	PR48 (2) SOF12 + PR12 (1) SOF12 + RBV12 (1) SOF24 + RBV24 (3) SIM12 + PR24-48 RGT (2) DCV24 + ASU24 (1)	PR48 (6)
Discontinuations due to adverse events	0 to 20%	PR48 (2)	
Relapse	0 to 40%	PR48 (5) SOF12 + RBV12 (3) SOF24 + RBV24 (4) SIM12 + PR24-48 RGT (1)	SOF24 + RBV24 (1)
Mortality — all causes	0 to 1% Except 2% for PR48 (1)		
Mortality — liver-related	0% or NR		
Serious adverse events	0 to 21%	PR48 (2) SOF12 + RBV12 (1)	

Table 68: Other Safety Events — All Genotype Treatment-Naive Patients — Frequency of Reporting			
Safety	**Range**	**Exceeds 10%**	**Exceeds 35%**
Adverse events	42 to 100%		All
Fatigue	0 to 68%		All
Pruritus	0 to 57%	All	
Neutropenia	0 to 30%	PR48 (7) SOF12 + PR12 (4) SIM12 + PR24-48 RGT (3)	
Thrombocytopenia	0 to 17%	SOF12 + PR12 (2)	
Flu-like symptoms	0 to 30%	PR48 (7) SOF12 + PR12 (1) SIM12 + PR24-48 RGT (3)	
Suicidal ideation	0 to 3% 2% for SIM12 + PR24-48 RGT		
Epoetin alfa use	0 to 43%	PR48 (2)	
Blood transfusion	0 to 9%		
Hepatocellular carcinoma	Rare		
Liver transplants	Rare		

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir.
Note: Numbers after each treatment indicate duration in weeks.

Treatment-Experienced Patients

The occurrence of other safety events, as reported in the studies included in the review, is reported in Table 69 for treatment-experienced patients. Similar to treatment-naive patients:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, hepatocellular carcinoma, and liver transplants were infrequently reported across all treatments:
  - Adverse events, fatigue, and pruritus were frequently reported across all treatments
  - PR48 was often associated with harms, and
  - SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

Table 69: Other Safety Events — All Genotype Treatment-Experienced Patients — Frequency of Reporting			
Safety	**Range**	**Exceeds 10%**	**Exceeds 35%**
Withdrawals — all causes	0 to 48%	PR48 (3) SOF24 + RBV24 (1)	SOF12 + RBV12 (1)
Withdrawals due to adverse events	0 to 2% 2% for SIM12 PR48 (2), PR48 (1)		
Discontinuations — all causes	0 to 71%	PR48 (1) SIM12 PR48 (3) DCV24 + ASU24 (3)	PR48 (2)

Table 69: Other Safety Events — All Genotype Treatment-Experienced Patients — Frequency of Reporting			
Safety	**Range**	**Exceeds 10%**	**Exceeds 35%**
Discontinuations due to adverse events	0 to 10%		
Relapse	0 to 90%	PR48 (4) SOF24 + RBV24 (1) SIM12 PR24-48 (1) SIM12 PR48 (1) SOF12 + PR12 (2) DCV24 + ASU24 + BEC12 (1)	SOF12 + RBV12 (2)
Mortality — all causes	0 to 3%		
Mortality — liver-related	0 to 3%		
Serious adverse events	0 to 12%	SOF24 + LDV24 (1) SIM12 PR48 (1) DCV24 + ASU24 (1)	
Adverse events	37 to 100%		All
Fatigue	0 to 78%		All
Pruritus	0 to 52%	All	
Neutropenia	0 to 27%	PR48 (4) SOF12 + PR12 (2) SIM12 PR48 (2) SIM12 PR24-48 (1) DCV24 + ASU24 + PR24 (1)	
Thrombocytopenia	0 to 15%	SOF12 + PR12 (1)	
Flu-like symptoms	0 to 55%	PR48 (4) SOF12 + PR12 (2) SIM12 + PR24-48 RGT (1) SIM12 PR48 (2) DCV24 + ASU24 + PR24 (1)	
Suicidal ideation	0 to 5% 5% for SOF12 + LDV12 + RBV12 (1)		
Epoetin alfa use	0 to 41%	PR48 (1)	
Blood transfusion	0 to 9%		
Hepatocellular carcinoma	0 to 6% 6% for SIM12 + PR24-48 RGT		
Liver transplants	Rare		

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR/RIT = paritaprevir/ritonavir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir.
Note: Numbers after each treatment indicate duration in weeks.

DISCUSSION

Patients with CHC infection have expressed the need for new treatments that have higher cure rates, better side effect profiles, and reduced treatment burden compared with existing PR-based therapies, and that are accessible and affordable. The introduction of new DAAs may address some unmet needs in patients with CHC infection, but the comparative benefit and harms of the new DAA-based regimens needs to be evaluated, especially in light of their high cost. The objective of this therapeutic review was to evaluate the comparative benefits, harms, and cost-effectiveness of the DAA regimens for CHC infection. It was undertaken to help inform formulary listing decisions for the approved and emerging DAA therapies by identifying the most cost-effective strategies based on patient characteristics and prior treatment history.

Summary of Evidence

A total of 77 studies[25,32,36,42-111] in adults with CHC infection met the inclusion criteria for this systematic review, five of which were on regimens considered to be emerging, according to our research protocol.[51,54,63,75,85,89,100] Of these studies, 27 were in patients who were treatment-naive,[43,49,50,54,55,57-59,64-66,71,81,82,87,90,94,100,103,105-109] 15 were in patients who were treatment-experienced,[42,44,45,51,56,66,69,80,84,86,101,102,104,110,111] 26 were in patients with combined treatment experience,[25,32,36,46,48,52,53,60-63,67,68,72-75,77,79,83,85,89,91-93,99] seven were in patients who had HIV coinfection[74,82,87,89,90,93,94] and two were in patients who were liver transplant recipients.[46,61] No studies in populations of special interest — i.e., patients with HBV or TB coinfection, or in patients who had failed treatment with a DAA-only regimen — met the inclusion criteria.

Separate analyses were conducted for populations based on genotype and prior treatment history due to anticipated differences in treatment efficacy, and because these parameters are used in clinical practice to determine optimal management. Safety analyses were conducted across genotypes while addressing populations separately based on prior treatment history.

A number of treatment regimens were evaluated, including those approved by Health Canada or for which CADTH had received pre-NOC submissions to the CDR, regimens not currently approved but considered to be of clinical relevance based on Canadian or US clinical practice guidelines,[2,27] and emerging treatments having a high likelihood of regulatory approval in Canada in the near future (i.e., within approximately 12 months) based upon information available to CADTH as of February 2015. Treatment regimens included DAA regimens with and without PR or RBV, and interferon-free DAA treatment regimens. Due to their diminished clinical relevance or removal from the market, boceprevir, telaprevir, and PR alone were included only as comparators to the other regimens for treatment of genotype 1 infection, and to enhance the robustness of the treatment network geometry for the NMAs. Treatment regimens considered to be emerging were included only in supplemental analyses.

In studies of patients with CHC infection, 49 studies included patients with genotype 1,[25,42-45,48-52,55-65,67-69,71-76,80-96,100,101] 11 studies included patients with genotype 2,[32,53,64-66,74,79,87,92,93,99] 11 studies included patients with genotype 3,[32,53,64-66,74,77,87,92,93,99] eight studies included patients with genotype 4,[36,54,56,59,65,74,87,100] two studies included patients with genotype 5,[59,65] and three studies included patients with genotype 6.[59,65,100] Thirty-one randomized and

comparative studies,[25,32,36,42-45,49,50,52-55,63,64,68,69,71-73,75,81,83,86,89-92,100,101] including 10 RCTs, were carried forward from the previous review.[102-111]

Given the lack of RCTs directly comparing the new and emerging DAA treatment regimens, we conducted indirect treatment comparisons using Bayesian NMA methods for the outcomes of SVR at 12 weeks, anemia, rash, and depression. The data available varied for each NMA analysis.

Interpretation of Results

Efficacy — Sustained Virologic Response at 12 Weeks

Genotype 1

This review focuses on newer treatment regimens for CHC infection, in particular, SOF + LDV, PAR/RIT + OMB + DAS, and DCV-based regimens. A summary of the NMA results for CHC patients with genotype 1 infection with particular reference to these regimens is provided in Table 70. This table provides a summary, by patient subgroup and treatment history, of when these regimens significantly improved SVR compared with the treatments listed in the table.

In particular:

- For treatment-naive patients, all three regimens were superior to PR-based treatments, with SOF + LDV and PAR/RIT + OMB + DAS demonstrating this more often. In some cases, SOF + LDV and PAR/RIT + OMB + DAS were better than DCV-based regimens. There was less evidence for treatment-naive patients with cirrhosis.
- For treatment-experienced patients, all three regimens were superior to PR-based treatments, in particular SOF + LDV and PAR/RIT + OMB + DAS. There was limited evidence for patients with cirrhosis. In some cases, SOF + LDV and PAR/RIT + OMB + DAS were better than DCV-based regimens (in particular, PAR/RIT + OMB + DAS was better for genotype 1b and for patients without cirrhosis).
- For treatment-experienced patients with prior relapse, prior partial response, or null response, PAR/RIT + OMB + DAS demonstrated increased SVR rates compared with PR-based treatments, and compared with DCV-based regimens in genotype 1b.
- In sensitivity analyses incorporating the SOF + LDV eight-week regimen for treatment-naive patients without cirrhosis, this regimen was superior to PR and there were no significant differences compared with PAR/RIT + OMB + DAS, the SOF + LDV 12-week regimen, or DCV-based regimens. SOF + LDV for eight weeks is approved in Canada only for treatment-naive, non-cirrhotic patients with genotype 1 infection with a baseline HCV RNA < 6 million IU/mL. According to clinical experts, the majority of treatment-naive patients have a baseline viral load below this threshold, and should therefore be candidates for the eight-week regimen.

Exhibit 4: Genotype 1 Patients — Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
Treatment-Naive Patients			
All	PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 SIM12 + PR24-48 RGT (for DCV12 + SOF12) PR48
Genotype 1a	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT	(with RBV12) PR48 SOF12 + PR12	
Genotype 1b	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48	PR48 SIM12 + PR24-48 RGT
Cirrhotic	PR48 SOF24 + RBV24 SIM12 + PR24-48 RGT		PR48
Non-Cirrhotic	PR48 SOF24 + RBV24 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24	PR48 (with RBV12) PR48 SOF24 + RBV24 SIM12 + PR24-48 RGT	PR48 SIM12 + PR24-48 RGT (for DCV12 + SOF12) PR48
Treatment-Experienced Patients			
All	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SIM12 + PR48 DCV24 + ASU24 (24 weeks) PR48	PR48 (with RBV12) PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SIM12 + PR48 DCV24 + ASU24	PR48 SIM12 + PR48 (with PR24) PR48 SIM12 + PR48 SIM12 + PR24-48 RGT
Genotype 1a	PR48 SIM12 + PR24-48 RGT SIM12 + PR48 (24 weeks) PR48	(with RBV12) PR48 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12	(with PR24) PR48
Genotype 1b	PR48 (24 weeks) PR48	PR48 SIM12 + PR24-48 RGT	PR48 (with PR24) PR48 SOF12 + LDV12 SOF24 + LDV24 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24

Exhibit 4: Genotype 1 Patients — Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
Cirrhotic	PR48 (24 weeks) PR48		PR48 (with PR24) PR48 SIM12 + PR48
Non-Cirrhotic	PR48 SIM12 + PR24-48 RGT	PR48 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24 SIM12 + SOF12 (with RBV12) PR48 SOF12 + LDV12 SIM12 + PR24-48 RGT SIM12 + PR48 SOF12 + PR12 DCV24 + ASU24 DCV24 + ASU24 + PR24 SIM12 + SOF12	PR48 (with PR24) PR48 SIM12 + PR24-48 RGT
Treatment-Experienced Patients With Prior Relapse			
All	PR48	PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SIM12 + PR24-48 RGT	
Genotype 1a		(with RBV12) PR48	
Genotype 1b			
Cirrhotic			
Non-Cirrhotic		PR48 SIM12 + PR24-48 RGT (with RBV12) PR48 SIM12 + PR24-48 RGT	
Treatment-Experienced Patients With Prior Partial Response			
All		PR48 (with RBV12) PR48 SIM12 + PR48	PR48 (with PR24) PR48
Genotype 1a		(with RBV12) PR48 SIM12 + PR48	
Genotype 1b			
Cirrhotic			

Exhibit 4: Genotype 1 Patients — Summary of the Results for SVR With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Patient Population	**Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With**
Non-Cirrhotic		PR48 (with RBV12) PR48	
Treatment-Experienced Patients With Prior Null			
All		PR48 (with RBV12) PR48 SOF12 + PR12 SIM12 + PR48	PR48 SOF12 + PR12 (with PR24) PR48 SOF12 + PR12
Genotype 1a		(with RBV12) PR48 SIM12 + PR48 (24 weeks with RBV24) PR48 SIM12 + PR48	
Genotype 1b			
Cirrhotic			
Non-Cirrhotic		PR48 SIM12 + PR48 (with RBV12) PR48 SIM12 + PR48	(with PR24) SIM12 + PR48

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Of the regimens currently approved in Canada for the treatment of CHC infection, the combination of SOF with SIM is unique in that it has a Notice of Compliance with Conditions (NOC/c) (for the treatment of patients with genotype 1 infection and compensated liver disease) pending the results of studies confirming its clinical benefit. At the time of this review, interim data for the two phase 3 single-arm studies of SIM + SOF in genotype 1 treatment-naive or -experienced patients with and without cirrhosis, OPTIMIST-1[114] and OPTIMIST-2,[115] had been presented at conferences but had not yet been published. In OPTIMIST-1, 97% of patients treated with SIM12 + SOF12 (n = 150/155) achieved SVR12, which was superior to the SVR 12 rate of 87% in the historical control group. Patients treated with SIM8 + SOF8 achieved an SVR12 rate of 83% (n = 128/155), which was not superior to the SVR12 rate of 83% in the historical control group. Certain subgroups of patients achieved SVR12 rates of 100%. In the OPTIMIST-2 trial, treatment with SIM12 + SOF12 resulted in SVR12 rates of 84% (n = 86/103), which was superior to the SVR12 rate of 70% in the historical control group.[114,115] These data were not considered for inclusion in sensitivity analyses for the genotype 1 NMAs, as SIM12 + SOF12 was already included in the base-case analyses on the basis of trial evidence published in the peer-reviewed literature.

Other Genotypes

NMA analysis was also conducted in patients with genotype 2, 3, or 4 CHC infection. The data available were limited compared with genotype 1 and, with fewer treatment strategies being evaluated, the networks were simpler and there were a limited number of treatment comparisons resulting from the analysis.

In Table 71, the SVR results for specific treatments that have been compared and reported in this review are summarized.

In particular:

- For patients with genotype 2 infection, SOF12 + RBV12 significantly improved SVR rates over PR24 in treatment-naive patients, but SOF12 + PR12 did not. In treatment-experienced patients, neither SOF16 + RBV16 nor SOF12 + PR12 were significantly different from SOF12 + RBV12.
- For patients with genotype 3 infection and regardless of treatment experience, SOF24 + RBV24, DCV12 + SOF12, and SOF12 + PR12 significantly improved SVR compared with PR48, and there were no significant differences between these regimens.
- For patients with genotype 4 infection, DCV24 + ASU24 + PR24 significantly improved SVR compared with SOF12 + RBV12 in treatment-experienced patients overall, and for patients with and without cirrhosis. SOF12 + PR12 significantly improved SVR compared with SOF12 + RBV12 in treatment-naive patients overall.

Table 70: Genotype 2 to 4 Patients — Summary of the Results for SVR With Reference to Reported Treatment Regimens

Patient Population	Genotype 2			Genotype 3			Genotype 4			
	SOF12 + RBV12	SOF12 + PR12	SOF16 + RBV16	SOF24 + RBV24	DCV12 + SOF 12	SOF12 + PR12	SOF12 + RBV12	SOF24 + RBV24	SOF12 + PR12	DCV24 + ASU24 + PR24
Treatment-Naive Patients (PR24 Reference for Genotype 2) (PR48 Reference for Genotypes 3/4)										
All	PR24	NS		PR48	PR48		NS	PR48	PR48 SOF12 + RBV12	
Cirrhotic	PR24			PR48			NS	PR48		
Non-Cirrhotic	PR24	NS		PR48	PR48		NS	NS		
Treatment-Experienced Patients (SOF12 + RBV12 Reference for Genotypes 2/4) (PR48 Reference for Genotype 3)										
All	---	NS SOF16 + RBV16	NS	PR48	PR48	PR48	---	NS		SOF12 + RBV12
Cirrhotic	---	NS	NS	PR48		PR48	---	NS		SOF12 +

Table 70: Genotype 2 to 4 Patients — Summary of the Results for SVR With Reference to Reported Treatment Regimens										
Patient Population	Genotype 2			Genotype 3			Genotype 4			
	SOF12 + RBV12	SOF12 + PR12	SOF16 + RBV16	SOF24 + RBV24	DCV12 + SOF 12	SOF12 + PR12	SOF12 + RBV12	SOF24 + RBV24	SOF12 + PR12	DCV24 + ASU24 + PR24
										RBV12
Non-Cirrhotic	---	NS		PR48	PR48	NS	---	NS		SOF12 + RBV12

ASU = asunaprevir; DCV = daclatasvir; NS = no significant difference was found; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RCT = randomized controlled trial; SOF = sofosbuvir.
Note: Dashes (---) indicate that the treatment was the reference standard; blank cell indicates that the treatment was not considered for this patient population. Please refer to Treatment Regimen Nomenclature table for description of dosages.

A regimen of interest in this review for genotype 4 infection for which no evidence was identified was SOF12 + LDV12; while not currently indicated for genotype 4, it is recommended by the Canadian Association for the Study of the Liver (CASL) guidelines.[1] One study, NIAID SYNERGY,[116] on this regimen was published in July 2015, past the cut-off date for inclusion in the current review. This was an open-label, phase 2a trial of SOF12 + LDV12 for treatment-naive and treatment-experienced patients with CHC genotype 4 infection. Seven (33%) patients had cirrhosis. Twenty (95%) of 21 patients achieved SVR12 (95% CI 76 to 100), including all seven patients with cirrhosis. The patient who did not achieve SVR was nonadherent to study drugs and withdrew from the study.

The data for CHC genotype 5 and 6 infections were insufficient to perform meta-analysis. All six patients with genotype 6 and the one patient with genotype 5 who received SOF12 + PR12 in the NEUTRINO study achieved SVR12. All five patients with genotype 6 who received SOF24 + PR24 in the ATOMIC study achieved SVR12. Eight out of the 10 (80%) patients with genotype 6 who received ELB + GRZ in C-EDGE study achieved SVR12.

A regimen of interest in this review for genotype 6 infection for which no evidence was identified was SOF12 + LDV12; while not currently indicated for genotype 6, it is recommended by the CASL guidelines.[1] One study, ELECTRON2,[117] on this regimen is currently only available in abstract form. This was an open-label, phase 2 trial of SOF12 + LDV12 for treatment-naive and treatment-experienced patients with CHC genotype 6 infection. Two patients (8%) were treatment-experienced and two (8%) had cirrhosis. Twenty-four (96%) of 25 patients achieved SVR12. The patient who did not achieve SVR had discontinued therapy at week 8 due to intravenous drug abuse.

Safety

Three key adverse events were identified — rash, anemia, and depression — based on their impact on patients' quality of life and health care resources. These events were analyzed using NMA methods with all genotypes (1 through 4) combined in the analysis, and separate analyses by treatment-naive and treatment-experienced patients.

A summary of the NMA results with particular reference to SOF + LDV, PAR/RIT + OMB + DAS, and DCV-based regimens is provided in Table 72. This table provides a summary, by treatment history, of when these three regimens were significantly associated with fewer adverse events (i.e., rash, anemia, and depression) compared with the treatments listed in the table.

In particular:
For treatment-naive patients:

- All three regimens were associated with significantly lower risks for rash and anemia than PR-based treatments, but only SOF + LDV and DCV-based regimens were significantly associated with less depression compared with PR-based treatments.
- For rash, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV, PAR/RIT + OMB + DAS without RBV and DCV-based regimens.
- For anemia, PAR/RIT + OMB + DAS with or without RBV was less favourable than SOF + LDV.
- For depression, PAR/RIT + OMB + DAS with RBV and DCV were less favourable than SOF + LDV.

For treatment-experienced patients:

- All three regimens were associated with significantly less rash and anemia than PR-based treatments, but evidence was sparse for depression.
- For rash, DCV with PR was less favourable than SOF + LDV, PAR/RIT + OMB + DAS and DCV without PR.
- For anemia, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV and PAR/RIT + OMB + DAS without RBV.

Table 71: All Patients — Summary of the Results for Rash, Anemia, and Depression With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir

Safety Event	Harvoni (SOF12 + LDV12) Significantly Associated With Fewer Events Compared With	HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Associated With Fewer Events Compared With	Daclatasvir (DCV24 + ASU24) Significantly Associated With Fewer Events Compared With
Treatment-Naive Patients — All Genotypes			
Rash	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 + RBV12
Anemia	PR48 SOF12 + PR12 SOF24 + RBV24 SIM12 + PR24-48 RGT PAR/RIT12 + OMB12 + DAS12 ± RBV12	PR48 SOF12 + PR12 SOF24 + RBV24 SIM12 + PR24-48 RGT (with RBV12) PR48 SOF12 + PR12	(with DCV12 + SOF12) PR48 SOF12 + PR12 SOF24 + RBV24 SIM12 + PR24-48 RGT

Table 71: All Patients — Summary of the Results for Rash, Anemia, and Depression With Reference to Harvoni, HOLKIRA PAK, and Daclatasvir			
Safety Event	**Harvoni (SOF12 + LDV12) Significantly Associated With Fewer Events Compared With**	**HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Associated With Fewer Events Compared With**	**Daclatasvir (DCV24 + ASU24) Significantly Associated With Fewer Events Compared With**
Depression	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 DCV12 + SOF12 PAR/RIT12 + OMB12 + DAS12 + RBV12		PR48
Treatment-Experienced Patients — All Genotypes			
Rash	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 + PR24	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12 (with RBV12) PR48 DCV24 + ASU24 + PR24	PR48 DCV24 + ASU24 + PR24 SOF12 + PR12
Anemia	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48 SOF12 + PR12 SIM12 + PR24-48 RGT SOF24 + RBV24 DCV24 + ASU24 +PR24 PAR/RIT12 + OMB12 + DAS12 + RBV12 (with RBV12) PR48 SOF12 + PR12	(with PR24) PR48 SOF12 + PR12
Depression		(with RBV12) PR48	PR48

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

In addition to rash, anemia, and depression, other safety events were considered. The data available and/or the frequency of these safety events were not sufficient for NMA.

In particular:
For treatment-naive patients:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, hepatocellular carcinoma, and liver transplants were infrequently reported across all treatments
- Adverse events, fatigue, and pruritus were frequently reported across all treatments
- PR48 was often associated with harms, and
- SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

For treatment-experienced patients:

- Withdrawals due to adverse events, mortality (all-cause), mortality (liver-related), suicidal ideation, hepatocellular carcinoma, and liver transplants were infrequently reported across all treatments
- Adverse events, fatigue, and pruritus were frequently reported across all treatments
- PR48 was often associated with harms, and
- SOF12 + PR12, SOF12 + RBV12, SOF24 + RBV24, and SIM12 + PR24-48 RGT were associated with several harms.

Subgroup and Supplemental Analyses

Several additional analyses were conducted to explore potential sources of heterogeneity. These included NMAs stratified by:

- Patients with HIV coinfection
- Patients with a viral load at baseline of greater than 800,000 or 1,000,000 IU/ML or less than 800,000 or 1,000,000 IU/ML (genotype 1, 2, and 4 only, by previous treatment experience).

In Tables 73 and 74, a summary of the subgroups based on viral load and HIV coinfection is provided for patients with genotype 1 and 4 infection, respectively. Because the treatments of greatest interest were SOF + LDV, PAR/RIT + OMB + DAS, and DCV-based regimens, a summary of the NMA results with particular reference to these three regimens is provided in Table 73. This table provides a summary, by patient treatment history, of when these three regimens significantly improved SVR compared with the treatments listed in the table, for the three subgroups: low viral load (i.e., less than 800,000 or 1,000,000 IU/mL), high viral load, and HIV coinfection.

In particular, for subgroups of treatment-naive patients:

- For patients with higher viral load, all three regimens significantly improved SVR compared with PR-based treatment (PR48 and SOF12 + PR12), including SOF + LDV for eight weeks.
- For patients with lower viral load, DCV significantly improved SVR compared with PR48 and SOF24 + RBV24.
- Data were limited for the evaluation of patients with HIV coinfection; however, SOF + LDV significantly improved SVR in this population compared with PR48. In a sensitivity analysis, PAR/RIT12 + OMB12 + DAS12 + RBV12 also significantly improved SVR in patients with HIV coinfection compared with PR48. No significant difference was found between this regimen and SOF12 + LDV12.

It should be noted that the approved indication for SOF + LDV eight weeks is for treatment-naive patients with genotype 1 infection and no cirrhosis, a threshold that is much higher than the thresholds used to define low and high viral load in the included trials. The approved indication was based on a post-hoc analysis of relapse rates for patients with baseline HCV RNA above and below the 6 million IU/mL threshold.

For subgroups of treatment-experienced patients:

- Both SOF + LDV and PAR/RIT + OMB + DAS significantly improved SVR compared with DCV in groups with a higher viral load.
- Data were insufficient to evaluate patients with lower viral load, or those with HIV coinfection. In a single trial enrolling 21 treatment-experienced patients with genotype 1 infection and HIV coinfection treated with PAR/RIT + OMB + DAS + RBV for 12 or 24 weeks, 91% and 90% respectively achieved SVR.

Table 72: Genotype 1 Patients — Summary of the Results for SVR in Subgroups of Viral Load and HIV Coinfection with Reference to Harvoni, HOLKIRA PAK, and Daclatasvir

Patient Population	Harvoni (SOF12 + LDV12) Significantly Improved SVR Compared With	HOLKIRA PAK (PAR/RIT12 + OMB12 + DAS12) Significantly Improved SVR Compared With	Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With
Treatment-Naive Patients			
Higher Viral Load[a]	PR48 SOF12 + PR12 (8 weeks) PR48 SOF12 + PR12	(with RBV12) PR48 SOF12 + PR12	PR48 SOF12 + PR12
Lower Viral Load[b]			PR48 SOF24 + RBV24
HIV Coinfection	PR48	Based on sensitivity analysis: (with RBV12) PR48	
Treatment-Experienced Patients			
Higher Viral Load[a]	(with RBV) DCV24 + ASU24 SOF12 PR12	(with RBV12) DCV24 + ASU24	
Lower Viral Load[b]	No significant differences identified		
HIV Coinfection	Insufficient data		

ASU = asunaprevir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RIT = ritonavir; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

[a] Lower viral load = pre-treatment HCV RNA of < 800,000 or 1,000,000 IU/mL.
[b] Higher viral load = pre-treatment HCV RNA of >800,000 or 1,000,000 IU/mL.

Subgroup analysis by viral load was also conducted for patients with genotype 4 CHC infection. As before, the data available were limited compared with genotype 1 infection and,

with fewer treatment strategies being evaluated, the networks were simple and the number of treatment comparisons resulting from the analysis were limited.

In Table 74, the specific treatments that have been evaluated and reported are identified and their significance in improving SVR compared with the other treatments provided.

In particular, compared with SOF12 + RBV12, DCV24 + ASU24 + PR24 significantly improved SVR in treatment-experienced patients with high viral load. Otherwise, the results were non-significant.

Table 73: Genotype 4 Patients — Summary of the Results for SVR in Subgroups of Viral Load and HIV Coinfection With Reference to Reported Treatment Regimens

Patient Population	SOF12 + RBV12 Significantly Improved SVR Compared With	SOF24 + RBV24 Significantly Improved SVR Compared With	Daclatasvir (DCV24 + ASU24) Significantly Improved SVR Compared With
Treatment-Naive Patients			
Higher Viral Load[a]	NS	NS	
Lower Viral Load[b]	NS	NS	
Treatment-Experienced Patients (Reference SOF12 + RBV12)			
Higher Viral Load[a]	---	NS	(with PR24) SOF12 + RBV12
Lower Viral Load[b]	---	NS	NS

ASU = asunaprevir; DCV = daclatasvir; LDV = ledipasvir; NS = no significant difference was found; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RIT = ritonavir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

[a] Higher viral load = pre-treatment HCV RNA of >800,000 or 1,000,000 IU/mL

[b] Lower viral load = pre-treatment HCV RNA of < 800,000 or 1,000,000 IU/mL.
Note: Dashes (---) indicate that the treatment was the reference standard. Blank cell indicates that the treatment was not considered for this patient population. Please refer to Treatment Regimen Nomenclature table for description of dosages

Data were insufficient to conduct analyses for compensated cirrhosis, advanced compensated cirrhosis, and decompensated cirrhosis or for HBV or TB coinfection in patients with CHC within or across all genotypes.

Supplemental analyses were also conducted and incorporated for:

- Treatment regimens identified as emerging in the protocol
- SOF8 + LDV8 incorporated into the network for treatment-naive, non-cirrhotic genotype 1
- TURQUOISE II study incorporated into the network for SVR genotype 1 cirrhotic
- BOSON study incorporated into relevant genotype 3 analyses
- PEARL-I study data for PAR/RIT12 + OMB12 + RBV12 incorporated into genotype 4 network (all treatment-naive, all treatment-experienced, treatment-naive without cirrhosis, and treatment-experienced without cirrhosis)

The TURQUOISE II study,[25] along with nine other studies included in the systematic review, reported combined baseline characteristics for treatment-naive and -experienced patients.

Separate baseline data stratified by previous treatment experience was a requirement to conduct the matching exercise with the "virtual" study arms; hence, studies not reporting required data were excluded from the NMA. Experts consulted for this review believed the inclusion of TURQUOISE II in the NMA was important because it was the only study to report SVR results for PAR/RIT12 + OMB12 + DAS12 + RBV12 in the genotype 1 population with cirrhosis. Hence, the TURQUOISE II study was incorporated into the treatment network as part of a sensitivity analysis for SVR for genotype 1 cirrhotic patients using the assumption that the baseline characteristics for the treatment-naive and -experienced patients were the same. Although the clinical experts acknowledged that the assumption of similar baseline characteristics between treatment-naive and -experienced patients could bias the treatment effect toward PAR/RIT12 + OMB12 + DAS12 + RBV12 for experienced patients, it was felt that the value of having this treatment in the network outweighed this risk. Unlike TURQUOISE II, the nine other studies reporting combined baseline characteristics were not included in the NMA as part of sensitivity analyses, because their exclusion was unlikely to be as impactful to the results of the NMA.

The systematic review included information available in the public domain only and excluded abstracts that reported primary study results. The only exception was made for the BOSON trial comparing SOF12 + PR12 to SOF24 + RBV24 in genotype 3 patients, as clinical experts considered that omission of this large, randomized trial would limit the value of the analysis for this genotype. BOSON compared SOF + PR for 12 weeks with SOF + RBV for 16 weeks or 24 weeks in treatment-experienced patients with genotype 2 infection and compensated cirrhosis, and patients with genotype 3 infection who were either treatment-naive or -experienced with or without cirrhosis. This trial is unique in that it is one of the few RCTs of DAA-based regimens that was powered to detect differences in SVR between regimens (at least for the genotype 3 cohort). Inclusion of the BOSON data presented at the 2015 European Association for the Study of the Liver (EASL) conference in sensitivity analyses allowed for SOF12 + PR12 to be brought into the treatment-naive network for genotype 3, revealing that SOF12 + PR12 was significantly superior to PR48, and not significantly different from SOF24 + RBV24 or DCV12 + SOF12 (since these analyses were completed, the BOSON trial has been published[118]). For treatment-experienced patients with genotype 3 infection, SOF12 + PR12 was already included in the NMA based on a trial published in the peer-reviewed literature; inclusion of the BOSON data for this population did not change the results — i.e., SOF12 + PR12 remained superior to PR48, and was not significantly different from DCV12 + SOF12 or SOF24 + RBV24. It should be noted that the BOSON trialists reported that SOF + PR for 12 weeks was statistically superior in terms of SVR to SOF + RBV for 16 or 24 weeks among the overall cohort of patients with genotype 3 infection, with differences in SVR rates of 22% and 9%, respectively. This was not found in our NMAs, possibly because the sample sizes of the subgroups analyzed from this trial (i.e., treatment-naive and -experienced patient overall, and by cirrhosis status within each category) limited statistical power. While BOSON also enrolled patients with genotype 2 infection, data on SVR rates were not available according to treatment experience or cirrhosis status, which prevented inclusion of the BOSON results as a sensitivity analysis for the genotype 2 NMA.

Consideration of the PEARL-I study in the analyses of genotype 4 infection allowed for inclusion of PAR/RIT + OMB + RBV, a regimen that was submitted to CDR as a pre-NOC submission during the course of this review, and that received NOC in October 2015. The results of these sensitivity analyses suggest no significant differences in SVR between this regimen and SOF-based regimens.

One of the policy questions for this review pertains to re-treatment after failure of a previous DAA-based regimen. Due to the higher SVR rates achieved with DAA-based regimens, the number of patients experiencing treatment failure on these regimens is small. Based on input from clinical experts, patients with genotype 3 infection and cirrhosis may be more likely to experience treatment failure on initial therapy than other patients with CHC infection. Data for the efficacy and safety of treatments for CHC infection in patients previously treated unsuccessfully with DAA-PR regimens were limited to four studies that reported SVR rates specifically in this population, all in patients with genotype 1 infection.[42,80,84,95] SOF12 + PR12, SOF + LDV ± RBV for 12 or 24 weeks, and SOF24 + RBV24 demonstrated high SVR rates in these studies. Evidence for re-treatment of patients previously treated with an all-oral regimen was limited to data from 14 patients with genotype 1 infection previously treated with SOF + RBV; all 14 patients achieved SVR upon treatment with SOF12 + LDV12.

Among the three currently approved interferon-free regimens that were the main focus of this review, there was no evidence in the peer-reviewed literature for DCV-based regimens in patients with CHC infection and HIV coinfection, advanced cirrhosis, or liver transplant. Two studies presented at the 2015 EASL meeting, ALLY-1 and ALLY-2, are noteworthy in relation to these populations. In the ALLY-2 study (which was published[119] in August 2015, past the cut-off date for inclusion in the current review), patients with CHC genotypes 1 through 4 (83% genotype 1, mostly 1a) and HIV coinfection were randomized to DCV + SOF for eight or 12 weeks (n = 151 treatment-naive) or given a 12-week regimen (n = 52 treatment-experienced) with dose adjustment based on concomitant antiretroviral medications. In treatment-naive patients with genotype 1 infection, SVR was achieved in 96% of patients who received the 12-week regimen and 76% of patients who received the eight-week regimen. The rate of SVR in treatment-experienced patients with genotype 1 who received 12 weeks of treatment was 98%. In genotypes 2 through 4, all treatment-naive and -experienced patients who took the 12-week regimen achieved SVR, while seven of nine (78%) who took the eight-week regimen achieved SVR. The number of patients with cirrhosis was small; however, the SVR rates were similar (92%) to those without cirrhosis (98%) in the group treated for 12 weeks. Rash (6%) was experienced in the 12-week group but not in the eight-week group, and there were no withdrawals due to adverse events in the study.

In the ALLY-1 study, 60 patients with genotype 1 through 6 CHC infection with advanced cirrhosis likely to require a liver transplant, and 53 CHC patients post-liver transplant with HCV recurrence were given DCV + SOF + RBV for 12 weeks. SVR was achieved in 94% of patients with post-transplant HCV recurrence, and 83% in those with advanced cirrhosis. The ALLY-1 trial included 16 patients with decompensated cirrhosis (Child-Pugh class C); nine (56%) achieved SVR12. Additionally, 97% of post-transplant patients with genotype 1a achieved SVR, while 91% of post-transplant patients with genotype 3 achieved SVR. Investigators also noted that there was no need to alter the existing transplant medications, a common concern in treating this population.

The SOLAR-1 study (formerly only available in abstract format)[120] is another notable trial in patients with advanced liver disease. SOF + LDV+ RBV were administered for 12 or 24 weeks in patients with genotypes 1 or 4 with advanced liver disease, including a post-liver transplant cohort. Of the 337 patients enrolled, five had genotype 4 infection. In non-transplanted patients with decompensated cirrhosis, SVR rates were similar following 12 or 24 weeks of treatment (range 86% to 89%). Among post-transplant patients with no cirrhosis or with compensated cirrhosis, SVR ranged from 96% to 98% regardless of treatment duration. In the post-transplant group with decompensated cirrhosis, patients responded differently to treatment depending upon Child-Pugh class. Patients with Child-Pugh class B

had SVR rates of 86% to 88% regardless of treatment duration, while patients with Child-Pugh class C had lower rates of SVR following 12 (60%) and 24 weeks (75%) of treatment (n = 9). In a group of six patients with fibrosing cholestatic hepatitis, all achieved SVR. Among the five patients with genotype 4 CHC infection (included in previous results, but reported separately as well), three achieved SVR, one was lost to follow-up, and one died of complications of cirrhosis. Seven patients received a transplant on-study. One died, six achieved post-transplant virologic response at 24 weeks, and one achieved SVR12.

Strengths and Limitations

Strengths

This systematic review was conducted according to a pre-specified protocol. In addition, the list of included studies was vetted by clinical and methodological experts, and posted for external stakeholder comment. Standard approaches for collecting evidence and performing data extraction, and evaluating study quality, were utilized. Heterogeneity across trials in terms of patient characteristics, trial methodologies, and treatment protocols was carefully assessed. Subgroup and sensitivity analyses were conducted, where data allowed, to explore and control for potential sources of heterogeneity. These included patients with or without cirrhosis, prior treatment experience, genotype subtype, and DAA dosage regimens.

We separated analyses for patients with and without cirrhosis, as patients with cirrhosis achieve lower rates of SVR with PR and are at higher risk of treatment-related complications. Pooling data for METAVIR F3 and F4 subgroups may inflate the treatment effects for those with cirrhosis, and so we limited our analyses of cirrhosis to those with a fibrosis score of 4 or who were explicitly reported in the publication to be cirrhotic.

Key Limitations

The systematic review was limited by the quality of the included studies. Of the 67 studies included in the systematic review, overall quality was adequate; however, all but two studies had one or more methodological domains with an unclear or high risk of bias. Moreover, data for some DAAs in specific populations were limited to open-label, uncontrolled (or historically controlled) studies, thus limiting our ability to assess comparative efficacy and safety using standard Bayesian indirect comparison methodologies. No individual patient data were available for analyses, so it was not possible to use comparative effectiveness methods, such as propensity scores weighting, for matching studies and identifying a comparator arm or conducting an adjusted analysis. Instead, single-arm studies were incorporated into the NMA by creating a “virtual” study where a comparator arm matched for baseline patient characteristics was identified for the single arm.

NMAs could not be conducted for all outcomes of interest in the systematic review. The outcomes analyzed were selected based on their clinical importance to the research questions and the economic model. No studies reported long-term outcomes. The adverse events analyzed were limited to those specific events deemed to have the greatest impact on patients’ quality of life or ability to complete treatment regimens, or those that required additional interventions or incurred substantial costs to manage.

Limited data were available for severity of fibrosis by METAVIR score for the interferon-free DAA treatment regimens; instead, the more recent studies define patients according to whether they have cirrhosis or not. In order to maintain the most robust network possible for

SVR12, analyses were stratified by non-cirrhosis (i.e., METAVIR score F1 to F3) and cirrhosis (i.e., METAVIR score of F4). This classification method resulted in the exclusion of six studies reporting fibrosis scores of 3 and 4 combined from the NMA for SVR12. In addition, due to sparse data, our subgroup analyses for patients with cirrhosis may lack power, and the uncertainty in the findings is reflected in the wide CrIs.

A large majority of included studies excluded patients with TB, HBV coinfection, decompensated cirrhosis, liver transplant, or other significant illnesses; as such, we were unable to perform NMAs for these special patient populations. Evidence is evolving rapidly for patients with advanced cirrhosis or liver transplant, HIV coinfection, and other clinically important subgroups such as patients with chronic kidney disease; ongoing trials and studies published after the cut-off date for this review will provide insights regarding the optimal use of DAA-based regimens in these populations.

In the NMAs, the calculation of relative risk was based on the ORs and the "control" event rate (e.g., PR event rate) as a representation of the "real" population event rate. This rate may not necessarily reflect real-world rates observed in Canadian clinical practice. Additionally, in genotypes 2 to 4, a reference comparison was sometimes not available, or the studies in the NMA were all single arm, and a reference treatment was required to statistically connect the treatments for analysis. In these cases, additional studies (meta-analyses [MA], followed by primary observational studies if no MA data available) were identified by clinical experts to be used to provide the required estimates. Since real-world SVR rates for the reference treatments of interest may be lower than those observed in controlled clinical trials, the use of observational study data to bring reference treatments into NMAs may have biased efficacy results in favour of the DAA-containing regimens.

The number of trials that contributed to some of the NMAs was limited, which may have reduced the precision of the estimates from these analyses. Data were insufficient to conduct an NMA for some subpopulations of interest and in genotypes 5 and 6. Specifically, small numbers of patients with cirrhosis, patients previously treated (with PR, DAA + PR or DAA alone), and patients coinfected with HIV were included. Limited data was especially an issue in the analysis of genotype 1 patients with cirrhosis and all analyses for genotypes 2 to 4; thus, the results were associated with wide CrIs and should be interpreted accordingly, particularly comparisons in which no statistically significant difference was found.
We were unable to perform regression analyses to determine whether the proportion of patients with specific baseline characteristics or epidemiological factors in the trials had an impact on the findings.

Consistency was assessed whenever a closed loop was available, by comparing consistency and inconsistency models. However, in many of the analyses (e.g., genotypes 2 to 4), there was no closed loop available. We were unable to compare direct and indirect evidence between DAAs due to the absence of head-to-head trials and the large number of single-arm studies with historical control. Hence, our ability to assess consistency was limited. In the base-case analysis, similar treatment effects were assumed for peginterferon 2a and 2b, but there is evidence that patients who receive peginterferon 2a as part of their treatment regimen show better efficacy than those who receive peginterferon 2b. We were unable to conduct a sensitivity analysis in which peginterferon 2a and 2b regimens were considered to have different efficacy and safety. Additionally, we did not conduct direct pairwise comparisons for outcomes included in the NMA, due to the high proportion of single-arm studies.

We were unable to analyze adverse events according to severity, as data on severity were not consistently reported. In addition, different definitions of adverse events may have been used across studies, but due to the lack of detailed descriptions and study protocols, we were unable to assess potential differences.

In certain cases, the manner in which data were reported in the included studies limited our ability to include them in the primary NMA. For example, data from the ION-2[42] study of SOF + LDV at 12 or 24 weeks with and without RBV could not be included in the NMA for treatment-experienced CHC patients with prior relapse or partial or null response as SVR data were not presented according to whether the patients had cirrhosis or not. In some instances when the lack of stratified data prevented inclusion of key regimens in the NMA, assumptions were made to facilitate inclusion. For example, in order to include PAR/RIT + OMB + DAS for patients with genotype 1 infection and cirrhosis based on the TURQUOISE II trial, we had to assume as part of a sensitivity analysis that the reported baseline characteristics (which were presented for treatment-naive and -experienced patients combined) could be applied to each of these subgroups.

Output from the NMAs should be considered carefully in the context of the individual studies included in each analysis. For example, results for depression show that there is a higher rate of depression associated with PAR/RIT12 + OMB12 + DAS12 + RBV12 treatment than with SOF12 + LDV12. Although statistically significant, the indirect estimate was based on a single, small (n = 38) study of PAR/RIT12 + OMB12 + DAS12 + RBV12.[62] Eligible patients in the study were injection-drug users who were on stable opioid replacement therapy (methadone). The study authors note that comorbidities such as depression are often seen in this patient population, making comparisons with the broader population of patients complex.

A strength of this review was its comprehensiveness in identifying and assessing clinically relevant regimens for the treatment of CHC infection that are currently approved in Canada, recommended by major guidelines, or likely to be available in the near future. However, evidence that could be included in the NMAs was not available for some regimens of interest, namely DCV24 + SOF24 for genotype 1 infection; DCV + ASU + PR for treatment-naive patients with genotype 1 infection; DCV12 + SOF12 for treatment-experienced patients with genotype 1 infection; DCV + SOF for genotype 2 infection; SOF12 + PR 12 for treatment-naive patients with genotype 3 infection (although the sensitivity analysis incorporating results from BOSON mitigated this evidence gap); SOF12 + LDV12 + RBV12 and DCV24 + SOF24 ± RBV24 for genotype 3 infection regardless of treatment experience; SOF12 + LDV12 and DCV12 + ASU12 + PR12 for patients with genotype 4 infection; and SOF12 + PR12 for treatment-experienced patients with genotype 4 infection. Trial data for some of these regimens may be available in conference abstracts, which were not included in the systematic review. Furthermore, given the rapid and ongoing developments in the field, and because changes to review scope could be made only up to a certain point (February 2015) without compromising methodological quality and timeliness, it is possible that some regimens currently considered relevant may not have been captured in the review.

In the era when PR-based therapy was the only option for treatment of CHC infection, there were concerns regarding the impact of therapy on patient quality of life due to the significant adverse effects associated with interferon. The improved adverse effect profile of interferon-free therapies should yield benefits in terms of improved, or at least maintained, quality of life compared with PR-based regimens. While quality of life was originally considered as an outcome of interest for this review, a scan of several trials revealed that quality of life was measured using a variety of instruments, and direct comparisons between interferon-free and

interferon-based regimens, or between various interferon-free regimens, on quality of life were rare. Furthermore, interferon-free regimens were generally superior to interferon-based regimens on SVR and key safety outcomes; therefore, any benefits with respect to quality of life would only augment their benefit-risk profile. For these reasons, quality of life was not included as an outcome of interest in the systematic review.

The evidence for emerging regimens is evolving rapidly and at the time of this review, many studies for these regimens are yet to be published and were therefore not included in the review. For this reason, conclusions on these emerging treatments should be interpreted with caution due to the limited data available.

Other Considerations

Three Clinical Practice Guidelines in Canada (CASL), the United States (American Association for the Study of Liver Diseases [AASLD]) and Europe (EASL) have recently updated their recommendations in 2015 to include the DAA treatment regimens. Although our findings are generally consistent with these guidelines, some discrepancies exist, and we were unable to corroborate recommendations in some subgroups as we did not run analyses within specific subgroups (e.g., genotype 1a treatment-naive cirrhotic patients without Q80K polymorphism). The EASL Guidelines pooled treatment-naive and -experienced patients in its recommendations, which makes detailed comparisons to our findings challenging. We were not able to confirm any of the recommendations for genotype 5 and 6, as data were insufficient to perform NMA for these genotypes.

No other technology assessments have comprehensively assessed the comparative efficacy or cost-effectiveness of the interferon-free DAA treatment regimens across all genotypes. The California Technology Assessment Forum (CTAF) performed a frequentist indirect treatment comparison and value assessment of SOF and SIM in April 2014, in patients with genotype 1, 2 or 3 CHC infection. While they note that the lack of head-to-head trials makes it difficult to assess the relative efficacy of the different treatment regimens, they assumed reference group SVR12 rates observed in control groups of other included studies to incorporate single-arm studies into the network, and in some cases, pooled SVR12 across multiple study arms. They note, as this study does, that the effect estimates produced from the indirect comparisons through use of the “virtual” or extrapolated control arms should be considered to have greater uncertainty than the CI or CrI suggests. Although the CTAF review included fewer comparisons and fewer studies, results were generally consistent with our findings across genotypes 1 to 3. They summarize that for most groups, the DAA treatment regimens offer a clear improvement over PR. The study scope was insufficient to elucidate differences among SIM and SOF (combined or with/without RBV alone) given the high rates of SVR (90% or higher in some treatment groups).

For patients with CHC and HIV coinfection, the potential for drug interactions between anti-HCV and anti-HIV therapies is an important consideration in the choice of therapy. A comprehensive evaluation of drug interactions was beyond the scope of this review; however, a recent guideline from AASLD provides guidance in this area.[121] The AASLD recommends (Class 1, Level A) DCV dose adjustment with RIT-boosted atazanavir, efavirenz, or etravirine. Other treatment regimens are mentioned with a lower level of supporting evidence (SOF/LDV and PAR/RIT + OMB ± DAS, Class 11a, level B/C). Current recommendations highlight that LDV increases tenofovir levels and creatinine clearance must be considered, and LDV should be avoided when RIT-boosted HIV protease inhibitors are used. They also caution that PAR/RIT + OMB ± DAS and SIM should be used only with

antiretroviral drugs that do not have interactions with the regimen and flag that the RIT used to boost the HIV protease inhibitor may need to be adjusted or held during treatment for CHC infection, and then restored when treatment is completed. Recommendations also show a lengthy list of contraindicated antiretroviral treatments with SOF/LDV, PAR/RIT + OMB ± DAS, RBV and SIM, which should not be used with any HIV protease inhibitor.

CONCLUSIONS AND IMPLICATIONS FOR DECISION-MAKING

In terms of efficacy (as measured by SVR):

- For treatment-naive and -experienced patients with genotype 1 infection, SOF + LDV, PAR/RIT + OMB + DAS, and DCV were superior to PR-based treatments. SOF + LDV and PAR/RIT + OMB + DAS were better than DCV-based regimens in some patient subgroups. There was limited evidence for patients with cirrhosis.
- The data available for genotype 2 to 4 were limited. For patients with genotype 2 infection, SOF12 + RBV12 significantly improved SVR rates over PR24 in treatment-naive patients, but SOF12 + PR12 did not. In treatment-experienced patients, neither SOF16 + RBV16 nor SOF12 + PR12 were significantly different from SOF12 + RBV12.
- For patients with genotype 3 infection and regardless of treatment experience, SOF24 + RBV24, DCV12 + SOF12, and SOF12 + PR12 significantly improved SVR compared with PR48, and there were no significant differences between these regimens.
- For genotype 4 patients, DCV24 + ASU24 + PR24 and SOF12 + PR12 were superior to SOF12 + RBV12 in treatment-experienced and -naive patients, respectively.
- The data for genotype 5 and 6 infection were insufficient for analysis.
- Data were limited for the evaluation of patients with HIV coinfection; however, SOF + LDV, PAR/RIT + OMB + DAS + RBV, and SOF24 + RBV24 significantly improved SVR compared with PR48 in treatment-naive patients with genotype 1 infection, and there was some indication that PAR/RIT + OMB + DAS + RBV is efficacious for treatment-experienced patients with genotype 1 infection and HIV coinfection. NMA could not be performed for patients infected with other genotypes and coinfected with HIV, although the following regimens demonstrated high rates of SVR in treatment-naive patients in individual trials: SOF12 + RBV12 in genotype 2; SOF24 + RBV24 in genotype 3; SOF24 + RBV24 and SOF12 + PR12 in genotype 4. There were no data for treatment-experienced patients with non-genotype 1 infections and HIV coinfection.
- There were limited data to inform optimal re-treatment of patients after failure to achieve SVR on a previous DAA-based regimen. SOF12 + PR12, SOF + LDV ± RBV for 12 or 24 weeks, and SOF24 + RBV24 demonstrated high SVR rates in studies of patients with genotype 1 infection who had failed prior DAA-PR therapy. Preliminary evidence suggests that SOF12 + LDV12 may be associated with high SVR rates in patients with CHC genotype 1 infection previously treated unsuccessfully with SOF + RBV.
- No evidence was available to allow analysis of efficacy for the following regimens: DCV24 + SOF24 for genotype 1 infection; DCV + ASU + PR for treatment-naive patients with genotype 1 infection; DCV12 + SOF12 for treatment-experienced patients with genotype 1 infection; DCV + SOF for genotype 2 infection; SOF12 + LDV12 + RBV12 and DCV24 + SOF24 ± RBV24 for genotype 3 infection regardless of treatment experience; SOF12 + LDV12 and DCV12 + ASU12 + PR12 for patients with genotype 4 infection; and SOF12 + PR12 for treatment-experienced patients with genotype 4 infection.

In terms of safety:

- Adverse events, fatigue and pruritus were frequently reported across all treatments.
- Withdrawals due to adverse events, mortality, and liver-related complications of CHC infection (e.g., hepatocellular carcinoma) were infrequently reported across all treatments.
- For treatment-naive and -experienced patients, SOF + LDV, PAR/RIT + OMB + DAS, and DCV-based regimens were associated with lower risks for rash and anemia than PR-based treatments, but only SOF + LDV and DCV-based regimens were associated with less depression compared with PR-based treatments. In particular, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV.
- For treatment-experienced patients, SOF + LDV, PAR/RIT + OMB + DAS and DCV-based regimens were associated with less rash and anemia than PR-based treatments, but evidence was sparse for depression. For rash, DCV with PR was less favourable than SOF + LDV, PAR/RIT + OMB + DAS, and DCV without PR. For anemia, PAR/RIT + OMB + DAS with RBV was less favourable than SOF + LDV and PAR/RIT + OMB + DAS without RBV.

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APPENDIX 1: PATIENT INPUT INFORMATION

This section was summarized by CADTH Common Drug Review staff based on the input provided by patient groups. It has not been systematically reviewed. It has been reviewed by the submitting patient groups.

1. Brief Description of Patient Group(s) Supplying Input

Two patient groups submitted input.

The Canadian Treatment Action Council (CTAC) is a national non-governmental organization whose mandate is to address access to treatment, care, and support for people living with HIV or hepatitis C virus (HCV). Full membership is limited to persons living with HIV/AIDS or organizations with a substantial HIV/AIDS mandate. CTAC has received unrestricted organizational and educational grants from Abbott/AbbVie, Boehringer-Ingelheim, Gilead Sciences, Janssen, and ViiV Healthcare. CTAC made no statement with regard to possible conflicts of interest in the preparation of its submission.

The Hepatitis C Education and Prevention Society (HepCBC) is a non-profit organization run by and for people affected by HCV in British Columbia. HepCBC focuses on providing peer support groups, anti-stigma activities, prevention education, general hepatitis information, and encouraging testing among at-risk groups. HepCBC has received funding to support educational and advertising activities and attendance at conferences from Merck Pharmaceuticals, Hoffmann-La Roche, Vertex Pharmaceuticals, Gilead Sciences, Janssen Pharmaceuticals, Bristol-Myers Squibb, Boehringer-Ingelheim, and AbbVie. Other support has been received from Rx&D. HepCBC indicated that the author of this submission has attended several educational conferences and meetings for which registration and travel expenses were funded by the pharmaceutical companies listed above.

2. Condition and Current Therapy-Related Information

The information contained in this section was gathered through surveys and written contributions from patients, caregivers, and service providers, and based on aggregated input from monthly support groups, telephone conversations, and email support systems.

HCV is a serious and potentially life-threatening liver disease that may lead to liver fibrosis, cirrhosis, cancer, liver failure, and even death. HCV infection can remain asymptomatic for several decades, and many patients find out that they are infected only once liver damage is severe. Conversely, some patients experience symptoms much earlier after initial infection. The number, type, and severity of symptoms vary between individuals, and often lead to a misdiagnosis when injection drug use is not suspected. No symptom is universal across all patients. The most frequently reported symptoms include fatigue, headaches, muscle or joint pain, slower motor reflexes, digestive problems, weight loss, suppressed appetite, hair loss, insomnia, irritability, depression, and reduced cognitive functioning (e.g., memory, word recall, concentration and attention span, speed of thought, fluency of speech, ability to learn). Other reported symptoms include digestive problems (e.g., lack of appetite, inability to digest common foods, Crohn's disease, esophageal bleeds, acid reflux), electrolyte and iron imbalances, water retention, hypothyroidism, gall bladder attacks, sexual dysfunction, sensory disturbances (e.g., detection of chemical odours, rapid eye deterioration, sensitivity and avoidance of light and

noise), and anxiety and rage. These symptoms lead to other health problems (e.g., inactivity leading to weight gain and overuse of painkillers leading to more liver damage) and to difficulty engaging in social and family activities, and maintaining employment.

The impact of the patient's disease on caregivers is also evident. Caregivers find it difficult to support their loved one during treatment and often deal with poverty and experience a sense of isolation and uncertainty about the future. Poverty ensues as medical expenditures increase, as the patient is unable contribute to family responsibilities, and as caregiving requirements disrupt the caregiver's own work. These increased demands on the caregiver contribute to the caregiver's sense of isolation — a feeling that is also influenced by the social stigma of HCV and ignorance regarding how the disease is spread. The unpredictability of the disease also leaves caregivers uncertain about how long their loved one will be able to live independently or remain alive at all. Caregivers expressed concern regarding their capacity to educate themselves about the virology of the disease and to stay informed of new treatments and treatment availability across provinces, and their ability to navigate the health care system. It is recognized that these concerns may be even more challenging for caregivers who are aging and may need care themselves.

The social stigma associated with HCV infection is of concern to patients and their caregivers. Driven by the emergence of promising treatments, patients in the baby-boom cohort have become more willing to be open about their infection; however, patients coinfected with HIV experience increased stigma and treatment challenges.

Patients say that current treatment has become diversified over the past year depending on a patient's genotype and stage of liver disease, and whether the patient has private insurance. While it is recognized that the early treatments interferon and ribavirin are necessary in some cases, there is an overwhelming consensus from patients that when possible, interferon and ribavirin should no longer be used due to their debilitating side effects and low efficacy. Patients cite interferon as "a very taxing, difficult drug," and at least two patients called ribavirin "poison." Administering interferon can also be a source of anxiety for patients with a history of injection drug use. Boceprevir and telaprevir were noted by patients as later-generation therapies that increased sustained virologic response (SVR) and had shorter treatment durations, but patients were still aware of their side effects. Simeprevir was noted to cause fewer side effects; however, its administration with interferon and ribavirin limited its use for many patients.

Patients indicated a need for interferon-free treatments with increased SVR rates, shorter treatment durations, fewer side effects, and effectiveness across all genotypes, stages of liver disease, and previous treatment responder types. One patient group indicated that a large percentage of patients with whom they come into contact were being "warehoused," either by doctors or by themselves, rejecting the idea of taking current therapies, knowing vastly superior drugs are so close to being approved. There is an overwhelming sense of "desperation and despair" from patients. Time is of the essence and patients indicate that "they know life-saving drugs are out there if they can just hold on long enough…"

3. Related Information About the Drugs Being Reviewed

Patients expect that the new drugs will require a shorter duration of treatment and be more efficacious and tolerable. They are optimistic about the safety and efficacy of the drugs, but are concerned about availability and accessibility. Patients tend not to differentiate between the various new drugs because they are all so much better than the existing ones; these drugs share the characteristics of being mostly tested on genotype 1, have far greater efficacy, a far shorter treatment time, are not administered with interferon or needles, have very few side effects, and are extremely expensive.

Many patients have had experience with the new direct-acting antivirals (DAAs) as part of clinical trials. All DAA treatment-experienced patients had had successful outcomes, except one patient who had to discontinue treatment due to a possible drug interaction. One patient group indicated that no side effects were reported from the use of these drugs, and the shorter durations of treatment were valued by patients and their caregivers. Patients responding to consultations about Holkira Pak, which requires multi-pill administration, suggested that if a treatment is more effective and offers a shorter duration of treatment, patients would accept the increased burden of multiple pill administration.

4. Additional Information

Patients are concerned that the prices of these drugs will be so high that CADTH (and/or provincial Pharmacare plans) will either not approve the treatment at all, or implement coverage criteria that require patients to undergo and fail very challenging standard treatments (with both interferon and ribavirin) before they are able to access newer DAAs. Delaying treatment until liver disease is more advanced affects patients' physical and mental well-being. It is frustrating for individuals, especially those who are experiencing multiple barriers, to be told that they are not sick enough to qualify for treatment. Patients worry about the liver damage that may be caused by delaying treatment and suggest that extrahepatic manifestations be considered in treatment decisions. The sooner a person is effectively treated (i.e., cured), quality of life is improved, and the less chance they have of inadvertently infecting someone else. Improved treatments for hepatitis C have the potential to reduce social system and health care costs for patients with severe liver disease. Delays in the funding decision process will mean that some patients' time will run out. One patient indicated that there are no other diseases for which a patient has to prove significant damage to their bodily organs in order to receive treatment. And there are no others for which a patient has to take such clearly inferior — even harmful — treatments simply because of price. Thus, there are concerns that this treatment will not be accessible because it is either not covered by public drug plans, or the criteria for coverage will limit access.

One patient group suggested that compensation for HCV infection should include diagnostic procedures and medication for managing side effects. They also suggest that CADTH address equitable pricing, and recommend that drug costs be amortized over time to show a clear justification for funding.

APPENDIX 2: REGIMENS ELIGIBLE FOR INCLUSION BY GENOTYPE

TABLE 74: REGIMENS ELIGIBLE FOR INCLUSION BY GENOTYPE

GENOTYPE	INTERVENTION	DOSE	DURATION
Genotype 1	Pegylated interferon alfa-2a + RBV (PR)	Pegylated interferon alfa-2a 180 mcg once weekly + weight-based RBV if < 75 kg = 1,000 mg if ≥ 75 kg = 1,200 mg each day in two divided doses	48 weeks
	Pegylated interferon alfa-2b + RBV (PR)	Pegylated interferon alfa-2b 1.5 mcg per kg once weekly + weight-based RBV (800 mg to 1,400 mg) each day in 2 divided doses	48 weeks
	BOC + PR	BOC 800 mg t.i.d. + PR	Treatment-naive: PR weeks 1 to 4, then (a) BOC + PR weeks 5 to 28, if HCV RNA undetected at weeks 8, 12, and 24; or (b) BOC + PR weeks 5 to 28, then PR weeks 29 to 48 if HCV RNA detectable at week 8, < 100 IU/mL week 12, and undetectable at week 24. Prior relapse or prior partial response: PR weeks 1 to 4, then (a) BOC + PR weeks 5 to 36, if HCV RNA undetectable at week 8, 12, and 24; or (b) BOC + PR weeks 5 to 36, then PR weeks 37 to 48, if HCV RNA detectable at week 8, < 100 IU/mL week 12, and undetectable at week 24. Prior null response, or patients with cirrhosis, or treatment-naive patients without cirrhosis but with a poor interferon response (< 1 $\log_{10}$ decline in HCV RNA at week 4): PR weeks 1 to 4, then BOC + PR weeks 5 to 48. Stopping rules: Stop all drugs if HCV RNA ≥ 100 IU/mL at week 12 or confirmed detectable at week 24.

GENOTYPE	INTERVENTION	DOSE	DURATION
	TEL + PR	TEL 750 mg t.i.d. or TEL 1,125 mg b.i.d. + PR	Treatment-naive, or prior relapse: TEL + PR weeks 1 to 12, then (a) PR weeks 13 to 24, if HCV RNA undetected at weeks 4 and 12; or (b) PR weeks 13 to 48, if HCV RNA detectable (≤ 1,000 IU/mL) at weeks 4 or 12. Prior partial response, or prior null response, or patients with cirrhosis: TEL + PR weeks 1 to 12, then PR weeks 13 to 48. Stopping rules: Stop all drugs if HCV RNA ≥ 1,000 IU/mL at week 4 or 12, or confirmed detectable at week 24.
	SIM + PR	SIM 150 mg q.d. + PR	Treatment-naive (with or without cirrhosis), or prior relapse (with or without cirrhosis): SIM + PR weeks 1 to 12, then (a) PR weeks 13 to 24, if HCV RNA undetectable at week 4; or (b) PR weeks 13 to 48, if HCV RNA < 25 IU/mL detectable at week 4. Prior partial response (with or without cirrhosis), or prior null response (with or without cirrhosis): SIM + PR weeks 1 to 12, then PR weeks 13 to 48. Stopping rules: Stop all drugs if HCV RNA ≥ 25 IU/mL at week 4. Stop PR therapy if HCV RNA detectable at week 12 or 24.
	SOF + PR	SOF 400 mg q.d. + PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12.
	SOF + RBV	SOF 400 mg q.d. + weight-based RBV[a]	12 weeks SOF + RBV for 24 weeks can be considered as a therapeutic option for treatment-naive and non-cirrhotic treatment-experienced G1 patients who are ineligible to receive an interferon-based regimen.

GENOTYPE	INTERVENTION	DOSE	DURATION
	SIM + SOF	SIM 150 mg q.d. + SOF 400 mg q.d.	12 weeks of SIM with SOF[b] in patients who are treatment-naive, prior relapse patients, and prior non-responder[c] patients (including partial and null responders) with or without cirrhosis.
	SIM + SOF + RBV	SIM 150 mg q.d. + SOF 400 mg q.d. + Weight-based RBV[a]	All 12 weeks[b]
	SOF + LDV	SOF 400 mg + LDV 90 mg q.d.	12[d] weeks in treatment-naive[e] G1 patients without cirrhosis 12 weeks in treatment-naive[e] G1 patients with cirrhosis[f] 12 weeks in treatment-experienced[g] G1 patients without cirrhosis 24 weeks in treatment-experienced[g] G1 patients with cirrhosis.
	SOF + LDV + RBV	SOF 400 mg + LDV 90 mg q.d. + weight-based RBV[a]	8,12, or 24 weeks
	PAR/RIT + OMB + DAS	PAR 75 mg/RIT 50 mg + OMB 12.5 mg (two tablets q.d.) + DAS 250 mg b.i.d.	G1b without cirrhosis = 12 weeks
	PAR/RIT + OMB + DAS + RBV	PAR 75 mg/RIT 50 mg + OMB 12.5 mg (two tablets q.d.) + DAS 250 mg b.i.d. + weight-based RBV[a]	G1a without cirrhosis = 12 weeks
	PAR/RIT + OMB + DAS + RBV	PAR 75 mg/RIT 50 mg + OMB 12.5 mg (two tablets q.d.) + DAS 250 mg b.i.d. + weight-based RBV[a]	12 weeks or 24 weeks for patients with cirrhosis
	DCV + ASU	DCV 60 mg q.d. + ASU 100 mg b.i.d.	G1b = 24 weeks
	DCV + ASU + PEG and RBV	DCV 60 mg q.d. + ASU 100 mg b.i.d. + PEG 180 mcg weekly + weight-based RBV[a]	24 weeks
	DCV + SOF	DCV 60 mg q.d. + SOF 400 mg q.d.	12 weeks for patients without cirrhosis or 24 weeks for patients with compensated cirrhosis
	GRZ + ELB	GRZ 100 mg q.d. + ELB 20 or 50 mg q.d.	8, 12, or 18 weeks
	GRZ + ELB + RBV	GRZ 100 mg q.d. + ELB 20 or 50 mg q.d. + weight-based RBV[a]	8, 12, or 18 weeks

GENOTYPE	INTERVENTION	DOSE	DURATION
	DCV + ASU + BEC + RBV	DCV 30 mg + ASU 200 mg + BEC 75 mg b.i.d. + weight-based RBV[a]	12 weeks
	DCV + ASU + BEC	DCV 30 mg + ASU 200 mg + BEC 75 mg b.i.d.	12 weeks
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	8 or 12 weeks
	SOF + GS-5816 + RBV	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d. + RBV (1,000 to 1,200 mg daily)	8 weeks
Genotype 2	Pegylated interferon alfa-2a + RBV (PR)	Pegylated interferon alfa-2a 180 mcg once weekly + weight-based RBV if < 75 kg = 1,000 mg if ≥ 75 kg = 1,200 mg each day in two divided doses	24 to 48 weeks for treatment-naive patients
	Pegylated interferon alfa-2b + RBV (PR)	Pegylated interferon alfa-2b 1.5 mcg per kg once weekly + weight-based RBV (800 mg to 1,400 mg) each day in two divided doses	24 to 48 weeks
	SOF + RBV	SOF 400 mg + weight-based RBV[a]	12 weeks Or 16 weeks for treatment-experienced patients who are cirrhotic
	SOF + PR	SOF 400 mg q.d. + PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12
	DCV + SOF	DCV 30 q.d. or DCV 60 mg q.d. + SOF 400 mg q.d.	24 weeks for patients with or without compensated cirrhosis.
	DCV + SOF + RBV	DCV 30 q.d. or DCV 60 mg q.d. + SOF 400 mg q.d.+ weight-based RBV[a]	24 weeks for patients with compensated cirrhosis
	GRZ + ELB + RBV	GRZ 100 mg q.d. + ELB 50 mg q.d. + weight-based RBV[a]	12 weeks
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	8 or 12 weeks
	SOF + GS-5816 + RBV	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d. + RBV 1,000 mg daily	8 weeks

GENOTYPE	INTERVENTION	DOSE	DURATION
Genotype 3	Pegylated interferon alfa-2a + RBV (PR)	Pegylated interferon alfa-2a 180 mcg once weekly + weight-based RBV if < 75 kg = 1,000 mg if ≥ 75 kg = 1,200 mg each day in two divided doses	24 to 48 weeks
	Pegylated interferon alfa-2b + RBV (PR)	Pegylated interferon alfa-2b 1.5 mcg per kg once weekly + weight-based RBV (800 mg to 1,400 mg) each day in two divided doses	24 to 48 weeks
	SOF + RBV	SOF 400 mg q.d. + weight-based RBV[a]	24 weeks
	SOF + PR	SOF 400 mg q.d. + PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12
	SOF + LDV + RBV	SOF 400 mg + LDV 90 mg q.d. + weight-based RBV[a]	At least 8 weeks
	DCV + SOF	DCV 60 mg q.d. + SOF 400 mg q.d.	12 weeks for patients without cirrhosis or 24 weeks for patients with compensated cirrhosis
	DCV + SOF + RBV	DCV 60 mg q.d.+ SOF 400 mg q.d. + weight-based RBV[a]	24 weeks for patients with compensated cirrhosis
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	12 weeks
	PAR/RIT + ABT-530 + RBV	NR	12 weeks
	PAR/RIT + ABT-530	NR	12 weeks
Genotype 4	Pegylated interferon alfa-2a + RBV (PR)	Pegylated interferon alfa-2a 180 mcg once weekly + weight-based RBV if < 75 kg = 1,000 mg if ≥ 75 kg = 1,200 mg each day in 2 divided doses	Up to 48 weeks for treatment-naive patients
	Pegylated interferon alfa-2b + RBV (PR)	Pegylated interferon alfa-2b 1.5 mcg per kg once weekly + weight-based RBV (800 mg to 1,400 mg) each day in two divided doses	Up to 48 weeks

GENOTYPE	INTERVENTION	DOSE	DURATION
	SOF + PR	SOF 400 mg q.d. + PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12
	SOF + RBV	SOF 400 mg q.d. + weight-based RBV[a]	12 weeks or 24 weeks
	SOF + LDV	SOF 400 mg + LDV 90 mg q.d.	12 weeks
	GRZ + ELB + RBV	GRZ 100 mg q.d. + ELB 50 mg q.d. + weight-based RBV[a]	12 weeks
	GRZ + ELB	GRZ 100 mg q.d. + ELB 50 mg q.d.	12 weeks
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	12 weeks
	DCV + ASU + PEG and RBV	DCV 60 mg q.d. + ASU 100 mg b.i.d. + PEG 180 mcg weekly + weight-based RBV[a]	24 weeks
	DCV + ASU + BEC	DCV 30 mg + ASU 200 mg + BEC 75 mg b.i.d.	12 weeks
	DCV + ASU + BEC	DCV 30 mg + ASU 200 mg + BEC 150 mg b.i.d.	12 weeks
Genotype 5	Pegylated interferon alfa-2a + RBV (PR)	Pegylated interferon alfa-2a 180 mcg once weekly + weight-based RBV if < 75 kg = 1,000 mg if ≥ 75 kg = 1,200 mg each day in 2 divided doses	Up to 48 weeks
	Pegylated interferon alfa-2b + RBV (PR)	Pegylated interferon alfa-2b 1.5 mcg per kg once weekly + weight-based RBV (800 mg to 1,400 mg) each day in 2 divided doses	Up to 48 weeks
	SOF + PR	SOF 400 mg q.d. + PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12
	DCV + SOF	NR	At least 8 weeks
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	At least 8 weeks
	GRZ + ELB + RBV	GRZ 100 mg q.d. + ELB 50 mg q.d. + weight-based RBV[a]	12 weeks

GENOTYPE	INTERVENTION	DOSE	DURATION
Genotype 6	SOF + PR	SOF 400 mg q.d.+ PR	Treatment-naive, or prior relapse, or prior partial response, or prior null response, or cirrhotic: SOF + PR weeks 1 to 12
	DCV + SOF		At least 8 weeks
	SOF + LDV	SOF 400 mg + LDV 90 mg q.d.	12 weeks
	SOF + GS-5816	SOF 400 mg q.d. + GS-5816 25 mg q.d. or GS-5816 100 mg q.d.	12 weeks
	GRZ + ELB + RBV	GRZ 100 mg q.d. + ELB 50 mg q.d. + weight-based RBV[a]	12 weeks
	GRZ + ELB	GRZ 100 mg q.d. + ELB 50 mg q.d.	12 weeks

ASU = asunaprevir; BEC = beclabuvir; b.i.d. = twice daily; BOC = boceprevir; DCV = daclatasvir; DAS = dasabuvir; ELB = elbasvir; G1 = genotype 1; GRZ = grazoprevir; HCV RNA = hepatitis C virus ribonucleic acid; IU = international unit; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PEG = pegylated interferon alfa; PR = pegylated interferon alfa combined with ribavirin; q.d. = once daily; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; TEL = telaprevir; t.i.d. = three times daily.

[a] Weight-based RBV dosing is < 75 kg = 1,000 mg daily or ≥ 75 kg = 1,200 mg daily, administered orally in two divided doses.

[b] Treatment for up to 24 weeks' duration should be considered in patients with cirrhosis.

[c] Prior relapser or non-responder; following prior treatment with interferon (pegylated or non-pegylated), with or without RBV.

[d] SOF + LDV for 8 weeks can be considered in treatment-naive patients without cirrhosis who have pre-treatment HCV RNA less than 6 million IU/mL.

[e] Treatment-naive is defined as no prior exposure to any interferon, RBV, or other approved or experimental HCV-specific direct-acting antiviral agent at the time of treatment initiation.

[f] Cirrhosis is defined as any one of the following: Liver biopsy showing cirrhosis (e.g., METAVIR score = 4 or Ishak score ≥ 5); or FibroScan (in countries where locally approved) showing cirrhosis or results > 12.5 kPa; or FibroTest score of > 0.75 and an aspartate aminotransferase (AST) to platelet ratio index (APRI) of > 2.

[g] Treatment-experienced is defined as those who failed prior therapy with an interferon-based regimen, including regimens containing an HCV protease inhibitor.

APPENDIX 3: ELECTRONIC SEARCH STRATEGY

TABLE 75: DATABASE SEARCH

OVERVIEW	
Interface:	Ovid
Databases:	Embase 1974 to present MEDLINE Daily and MEDLINE 1946 to present MEDLINE In-Process & Other Non-Indexed Citations EBM Reviews - Cochrane Central Register of Controlled Trials December 2014 **Note:** Subject headings have been customized for each database. Duplicates between databases were removed in Ovid.
Date of search:	February 4, 2015
Alerts:	Bi-weekly search updates. The last alert from which studies were selected for inclusion in the review was run on May 1, 2015.
Study types:	No study design filters used
Limits:	Date limit: None Language limit: English Conference abstracts: excluded Animal filter used
SYNTAX GUIDE	
/	At the end of a phrase, searches the phrase as a subject heading
.sh	At the end of a phrase, searches the phrase as a subject heading
exp	Explode a subject heading
*	Before a word, indicates that the marked subject heading is a primary topic; or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings
adj	Requires words are adjacent to each other (in any order)
.ti	Title
.ab	Abstract
.hw	Heading Word; usually includes subject headings and controlled vocabulary
.nm	Name of Substance Word
.ot	Original title
.pt	Publication type
.rn	CAS registry number
pmez	Ovid database code; MEDLINE In-Process & Other Non-Indexed Citations, MEDLINE Daily and Ovid MEDLINE 1946 to Present
oemezd	Ovid database code; Embase 1974 to present, updated daily
cctr	Ovid database code; Cochrane Central Register of Controlled Trials

MUTLI-STRATEGY DATABASE	
#	**Searches**
1	(incivek or incivo or telaprevir* or telapravir* or telepravir* or teleprevir* or VX-950 or VX950 or LY-570310 or LY570310 or MP-424 or MP424 or VRT-111950 or VRT111950).ti,ab.
2	*telaprevir/
3	(boceprevir* or bocepravir* or victrelis or sch 503034 or sch503034 or ebp 520 or ebp520).ti,ab.
4	*boceprevir/
5	(sofosbuvir* or GS 7977 or GS7977 or PSI 7977 or PSI7977 or PSI 7851 or PSI7851 or PSI 7976 or PSI7976 or Sovaldi or Virunon).ti,ab.

MUTLI-STRATEGY DATABASE	
#	**Searches**
6	*sofosbuvir/
7	(simeprevir* or TMC435 or TMC 435 or TMC435350 or TMC 435350 or Galexos or Olysio or Sovriad).ti,ab.
8	*simeprevir/
9	(ledipasvir* or GS-5885 or GS5885 or WHO 9796 or WHO9796).ti,ab.
10	*ledipasvir/
11	(paritaprevir* or veruprevir* or ABT 450* or ABT450*).ti,ab.
12	*paritaprevir/ or *veruprevir/
13	(ombitasvir* or ABT 267 or ABT267).ti,ab.
14	*ombitasvir/
15	(dasabuvir* or ABT 333 or ABT333).ti,ab.
16	*dasabuvir/
17	(daclatasvir* or BMS 790052 or BMS790052 or EBP 883 or EBP883 or Daklinza).ti,ab.
18	*daclatasvir/
19	(asunaprevir* or Sunvepra or BMS 650032 or BMS650032).ti,ab.
20	*asunaprevir/
21	(grazoprevir* or MK 5172 or MK5172).ti,ab.
22	*grazoprevir/
23	(elbasvir* or MK 8742 or MK8742).ti,ab.
24	*elbasvir/
25	(beclabuvir* or BMS 791325 or BMS791325).ti,ab.
26	*beclabuvir/
27	(GS5816 or GS 5816).ti,ab.
28	(ABT-530 or ABT530).ti,ab.
29	(Viekira or Viekirax or Exviera or Holkira or Harvoni).ti,ab.
30	or/1-29
31	30 use oemezd
32	31 not conference abstract.pt.
33	(incivek or incivo or telaprevir* or telapravir* or telepravir* or teleprevir* or VX-950 or VX950 or LY-570310 or LY570310 or MP-424 or MP424 or VRT-111950 or VRT111950).ti,ab,ot,sh,hw,rn,nm.
34	(402957-28-2 or 569364-34-7 or 655M5O3W0U).rn,nm.
35	(boceprevir* or bocepravir* or victrelis or sch 503034 or sch503034 or ebp 520 or ebp520).ti,ab,ot,sh,hw,rn,nm.
36	(394730-60-0 or 89BT58KELH).rn,nm.
37	(sofosbuvir* or GS 7977 or GS7977 or PSI 7977 or PSI7977 or PSI 7851 or PSI7851 or PSI 7976 or PSI7976 or Sovaldi or Virunon).ti,ab,ot,sh,hw,rn,nm.
38	(1190307-88-0 or WJ6CA3ZU8B).rn,nm.
39	(simeprevir* or TMC435 or TMC 435 or TMC435350 or TMC 435350 or Galexos or Olysio or Sovriad).ti,ab,ot,sh,hw,rn,nm.
40	(923604-59-5 or 9WS5RD66HZ).rn,nm.
41	(ledipasvir* or GS-5885 or GS5885 or WHO 9796 or WHO9796).ti,ab,ot,sh,hw,rn,nm.
42	(1256388-51-8 or 013TE6E4WV).rn,nm.
43	(paritaprevir* or veruprevir* or ABT 450* or ABT450*).ti,ab,ot,sh,hw,rn,nm.
44	(1216941-48-8 or OU2YM37K86).rn,nm.
45	(ombitasvir* or ABT 267 or ABT267).ti,ab,ot,sh,hw,rn,nm.

MUTLI-STRATEGY DATABASE	
#	**Searches**
46	(1258226-87-7 or 2302768XJ8).rn,nm.
47	(dasabuvir* or ABT 333 or ABT333).ti,ab,ot,sh,hw,rn,nm.
48	(1132935-63-7 or DE54EQW8T1).rn,nm.
49	(daclatasvir* or BMS 790052 or BMS790052 or EBP 883 or EBP883 or Daklinza).ti,ab,ot,sh,hw,rn,nm.
50	(1009119-64-5 or LI2427F9CI).rn,nm.
51	(asunaprevir* or Sunvepra or BMS 650032 or BMS650032).ti,ab,ot,sh,hw,rn,nm.
52	(630420-16-5 or S9X0KRJ00S).rn,nm.
53	(grazoprevir* or MK 5172 or MK5172).ti,ab,ot,sh,hw,rn,nm.
54	(1350462-55-3 or 1350514-68-9 or 4O2AB118LA or 8YE81R1X1J).rn,nm.
55	(elbasvir* or MK 8742 or MK8742).ti,ab,ot,sh,hw,rn,nm.
56	(1370468-36-2 or 632L571YDK).rn,nm.
57	(beclabuvir* or BMS 791325 or BMS791325).ti,ab,ot,sh,hw,rn,nm.
58	(958002-33-0 or MYW1X5CO9S).rn,nm.
59	(GS5816 or GS 5816).ti,ab,ot,sh,hw,rn,nm.
60	(ABT-530 or ABT530).ti,ab,ot,sh,hw,rn,nm.
61	(Viekira or Viekirax or Exviera or Holkira or Harvoni).ti,ab,ot,sh,hw,rn,nm.
62	or/33-61
63	62 use pmez,cctr
64	32 or 63
65	exp animals/
66	exp animal experimentation/ or exp animal experiment/
67	exp models animal/
68	nonhuman/
69	exp vertebrate/ or exp vertebrates/
70	or/65-69
71	exp humans/
72	exp human experimentation/ or exp human experiment/
73	or/71-72
74	70 not 73
75	64 not 74
76	75 use cctr
77	76 not Journal: conference abstract.pt.
78	75 use pmez,oemezd
79	limit 78 to english language
80	77 or 79
81	remove duplicates from 80

OTHER DATABASES	
PubMed	Same MeSH, keywords and limits used as per MEDLINE search, with appropriate syntax used. PubMed is searched to retrieve citations not found in MEDLINE.
Trial registries (Clinicaltrials.gov)	Same keywords, limits used as per MEDLINE search. Search limited to completed trials with study results.

Grey Literature

Date of search:	February 2015
Keywords:	Hepatitis C, telaprevir, boceprevir, simeprevir, sofosbuvir, ledipasvir, paritaprevir, ombitasvir, dasabuvir, daclatasvir, asunaprevir, grazoprevir, elbasvir, beclabuvir, GS-5816 and ABT-530
Limits:	No date limit, English only

Relevant websites from the following sections of the CADTH grey literature checklist, "Grey matters: a practical tool for evidence-based searching" (http://www.cadth.ca/en/resources/finding-evidence-is/grey-matters), were searched:

- Health Technology Assessment Agencies
- Health Economics
- Clinical Practice Guidelines
- Drug and Device Regulatory Approvals
- Advisories and Warnings
- Drug Class Reviews
- Databases (free).

APPENDIX 4: INCLUDED STUDY LIST (N = 67 STUDIES REPORTED IN N = 63 PUBLICATIONS)

1. Afdhal N, Reddy KR, Nelson DR, Lawitz E, Gordon SC, Schiff E, et al. Ledipasvir and sofosbuvir for previously treated HCV genotype 1 infection. N Engl J Med. 2014;370(16):1483-93.
2. Afdhal N, Zeuzem S, Kwo P, Chojkier M, Gitlin N, Puoti M, et al. Ledipasvir and sofosbuvir for untreated HCV genotype 1 infection. N Engl J Med. 2014;370(20):1889-98.
3. Andreone P, Colombo MG, Enejosa JV, Koksal I, Ferenci P, Maieron A, et al. ABT-450, ritonavir, ombitasvir, and dasabuvir achieves 97% and 100% sustained virologic response with or without ribavirin in treatment-experienced patients with HCV genotype 1b infection. Gastroenterology. 2014;147(2):359-65.
4. Bourliere M, Bronowicki JP, De Ledinghen V, Hezode C, Zoulim F, Mathurin P, et al. Ledipasvir-sofosbuvir with or without ribavirin to treat patients with HCV genotype 1 infection and cirrhosis non-responsive to previous protease-inhibitor therapy: a randomised, double-blind, phase 2 trial (SIRIUS). Lancet Infect Dis. 2015;15(4):397-404.
5. Charlton M, Gane E, Manns MP, Brown RS Jr, Curry MP, Kwo PY, et al. Sofosbuvir and ribavirin for treatment of compensated recurrent hepatitis C virus infection after liver transplantation. Gastroenterology. 2015;148(1):108-17.
6. Curry MP, Forns X, Chung RT, Terrault NA, Brown R Jr, Fenkel JM, et al. Sofosbuvir and ribavirin prevent recurrence of HCV infection after liver transplantation: an open-label study. Gastroenterology. 2015;148(1):100-7.
7. Dieterich D, Rockstroh JK, Orkin C, Gutierrez F, Klein MB, Reynes J, et al. Simeprevir (TMC435) with pegylated interferon/ribavirin in patients coinfected with HCV genotype 1 and HIV-1: a phase 3 study. Clin Infect Dis. 2014;59(11):1579-87.
8. Feld JJ, Kowdley KV, Coakley E, Sigal S, Nelson DR, Crawford D, et al. Treatment of HCV with ABT-450/r-ombitasvir and dasabuvir with ribavirin. N Engl J Med. 2014;370(17):1594-603.
9. Ferenci P, Bernstein D, Lalezari J, Cohen D, Luo Y, Cooper C, et al. ABT-450/r-ombitasvir and dasabuvir with or without ribavirin for HCV. N Engl J Med. 2014;370(21):1983-92.
10. Forns X, Gordon SC, Zuckerman E, Lawitz E, Calleja JL, Hofer H, et al. Grazoprevir/elbasvir plus ribavirin For chronic HCV genotype-1 infection after failure of combination therapy containing a direct-acting antiviral agent. J Hepatol. 2015;63(3):564-72.
11. Gane EJ, Stedman CA, Hyland RH, Ding X, Svarovskaia E, Subramanian GM, et al. Efficacy of nucleotide polymerase inhibitor sofosbuvir plus the NS5A inhibitor ledipasvir or the NS5B non-nucleoside inhibitor GS-9669 against HCV genotype 1 infection. Gastroenterology. 2014;146(3):736-43.
12. Gane EJ, Stedman CA, Hyland RH, Ding X, Svarovskaia E, Symonds WT, et al. Nucleotide polymerase inhibitor sofosbuvir plus ribavirin for hepatitis C. N Engl J Med. 2013;368(1):34-44.
13. Hassanein T, Sims KD, Bennett M, Gitlin N, Lawitz E, Nguyen T, et al. A randomized trial of daclatasvir in combination with asunaprevir and beclabuvir in patients with chronic hepatitis C virus genotype 4 infection. J Hepatol. 2015;62(5):1204-6.
14. Jacobson IM, Dore GJ, Foster GR, Fried MW, Radu M, Rafalsky VV, et al. Simeprevir with pegylated interferon alfa 2a plus ribavirin in treatment-naïve patients with chronic hepatitis C virus genotype 1 infection (QUEST-1): a phase 3, randomised, double-blind, placebo-controlled trial. Lancet. 2014;384(9941):403-13.

15. Jacobson IM, Gordon SC, Kowdley KV, Yoshida EM, Rodriguez-Torres M, Sulkowski MS, et al. Sofosbuvir for hepatitis C genotype 2 or 3 in patients without treatment options. N Engl J Med. 2013;368(20):1867-77.

16. Jensen D, Sherman KE, Hezode C, Pol S, Zeuzem S, Ledinghen V, et al. Daclatasvir and asunaprevir plus peginterferon alfa and ribavirin in HCV genotype 1 or 4 non-responders. J Hepatol. 2015;63(1):30-7.

17. Kohli A, Osinusi A, Sims Z, Nelson A, Meissner EG, Barrett LL, et al. Virological response after 6 week triple-drug regimens for hepatitis C: a proof-of-concept phase 2A cohort study. Lancet. 2015;385(9973):1107-13.

18. Kowdley KV, Gordon SC, Reddy KR, Rossaro L, Bernstein DE, Lawitz E, et al. Ledipasvir and sofosbuvir for 8 or 12 weeks for chronic HCV without cirrhosis. N Engl J Med. 2014;370(20):1879-88.

19. Kowdley KV, Lawitz E, Crespo I, Hassanein T, Davis MN, DeMicco M, et al. Sofosbuvir with pegylated interferon alfa-2a and ribavirin for treatment-naïve patients with hepatitis C genotype-1 infection (ATOMIC): an open-label, randomised, multicentre phase 2 trial. Lancet. 2013;381(9883):2100-7.

20. Kumada H, Suzuki Y, Ikeda K, Toyota J, Karino Y, Chayama K, et al. Daclatasvir plus asunaprevir for chronic HCV genotype 1b infection. Hepatology. 2014;59(6):2083-91.

21. Kwo PY, Mantry PS, Coakley E, Te HS, Vargas HE, Brown R Jr, et al. An interferon-free antiviral regimen for HCV after liver transplantation. N Engl J Med. 2014;371(25):2375-82.

22. Lalezari J, Sullivan JG, Varunok P, Galen E, Kowdley KV, Rustgi V, et al. Ombitasvir/paritaprevir/r and dasabuvir plus ribavirin in HCV genotype 1-infected patients on methadone or buprenorphine. J Hepatol. 2015;63(2):364-9.

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APPENDIX 5: EXCLUDED STUDY LIST AND STUDY ARMS

Excluded Studies (N = 175)
Duplicate Studies (N = 5)

1. Buti M, Agarwal K, Horsmans Y, Sievert W, Janczewska E, Zeuzem S, et al. Telaprevir twice daily is noninferior to telaprevir every 8 hours for patients with chronic hepatitis C. Gastroenterology. 2013.
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Intervention or Comparator not of Interest (N = 48)

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polymerase inhibitor, following multiple ascending doses in patients with chronic hepatitis C infection. Antimicrob Agents Chemother. 2013;57(3):1209-17.

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Foreign-Language Articles (N = 6)

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2. Kawaguchi Y, Mizuta T, Ide Y, Iwane S, Kohira T, Kamachi S, et al. Prediction of anemia in triple therapy with peginterferon alpha-2b, ribavirin, and telaprevir for patients with chronic hepatitis C from the viewpoint of renal function. Acta Hepatologica Japonica. 2013;54(7):509-12.
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Outcomes not of Interest (N = 8)

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Study Design (N = 108)

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4. Safety of telaprevir or boceprevir in combination with peginterferon alpha/ribavirin in cirrhotic nonresponders. First results of the French early access program (ANRS CO20-CUPIC). Gastroenterology and Hepatology. 2012;8(6 Suppl 3):8-9.
5. A special meeting review edition: advances in the treatment of hepatitis C virus infection from AASLD 2012: The 63rd Annual Meeting of the American Association for the Study of Liver Diseases, November 9-13, 2012 * Boston, Massachusetts. Special reporting on:* Timing and magnitude of ribavirin dose reduction do not impact SVR rates with boceprevir plus peginterferon alpha and ribavirin* A 12-week interferon-free treatment regimen with ABT-450/r, ABT-267, ABT-333, and ribavirin achieves high SVR12 rates* High rate of SVR with the all-oral combination of daclatasvir plus sofosbuvir with or without ribavirin* An interferon-free, ribavirin-free 12-week regimen of daclatasvir, asunaprevir, and BMS-791325 achieved high SVR4 rates plus meeting abstract summaries with expert commentary by: Fred Poordad, MD, University of San Antonio Health Science Center, San Antonio, Texas. Gastroenterol Hepatol (N Y). 2013;9(1 Suppl 1):1-20.
6. A special meeting review edition: Advances in the treatment of hepatitis C virus infection from The Liver Meeting 2013: The 64th Annual Meeting of the American Association for the Study of Liver Diseases, November 1-5, 2013 * Washington DC. Special reporting on:* Simeprevir plus sofosbuvir with or without ribavirin produces high SVR rates in genotype 1 HCV infection* Novel interferon- and ribavirin-free regimen results in SVR12 rates of over 90% in HCV genotype 1b infection* Studies confirm efficacy of adjunctive simeprevir in difficult-to-treat HCV genotype 1 subpopulations* All-oral therapy with sofosbuvir plus ribavirin produces high SVR rates in patients coinfected with HCV and HIV* Faldaprevir combined with pegylated interferon and ribavirin demonstrates high efficacy in difficult-to-treat HCV infection* Once daily sofosbuvir/ledipasvir combination elicits rapid decline in HCV RNA plus meeting abstract summaries with expert commentary by: Ira M. Jacobson, MD, Weill Cornell Medical College, New York, New York. Gastroenterol Hepatol (N Y). 2014;10(1 Suppl 1):1-19.

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TABLE 76: INCLUDED STUDIES WITH EXCLUDED STUDY ARMS

STUDY NAME, AUTHOR, PUBLICATION YEAR	TOTAL N ARMS	NO. ARMS INCL.	INCLUDED ARMS	NO. ARMS EXCL.	EXCLUDED ARMS	REASON FOR EXCLUDING ARM(S)
Treatment-Experienced:						
PEARL-II, Andreone, 2014 Randomized, historical controlled trial.	2	1	**PAR/RIT12 + OMB12 + DAS12**	1	**PAR/RIT12 + OMB12 + DAS12 + RBV12**	+ RBV: not a HC-approved regimen in non-cirrhotic, GT-1b
Lok, 2014 Randomized, non-controlled trial.	5	2	**DCV24 + ASU24**	3	**DCV24 + ASU24** A1 (GT-1b): DCV daily + ASU b.i.d. x 24 wks	ASU dose: above HC-approved dose for ASU (i.e., 400 mg/day vs. 200 mg/day)
			DCV24 + ASU24 + PR24		**DCV24 + ASU24 + PR24** B1 (GT-1a/1b): DCV daily + ASU b.i.d. + PR x 24 wks	
					B3 (GT 1a/1b): DCV + ASU b.i.d. + RBV x 24 wks	
Combined (Naive/Experienced):						
COSMOS, Lawitz, 2014 Randomized, non-controlled trial.	8	4	**SOF12 + SIM12 + RBV12**	4	Cohort 1, group 1: SIM + SOF + RBV x 24 wks	24-wk treatment duration: not a HC-approved regimen
			SIM12 + SOF12		Cohort 1, group 2: SIM + SOF x 24 wks	
			SOF12 + SIM12 + RBV12		Cohort 2, group 1: SIM + SOF + RBV x 24 wks	
			SIM12 + SOF12		Cohort 2, group 2: SIM + SOF x 24 wks	

STUDY NAME, AUTHOR, PUBLICATION YEAR	TOTAL N ARMS	NO. ARMS INCL.	INCLUDED ARMS	NO. ARMS EXCL.	EXCLUDED ARMS	REASON FOR EXCLUDING ARM(S)
HALLMARK-DUAL, Manns, 2014 Randomized, controlled trial for treatment-naive patients; non-randomized and non-controlled for treatment-experienced and IF intolerant in ineligible.	4	3	**DCV24 + ASU24**	1	Placebo	Placebo arm of no interest to therapeutic review.
			DCV24 + ASU24			
			DCV24 + ASU24			
POSITRON, Jacobson, 2013 Randomized, placebo controlled trial.	2	1	**SOF12 + RBV12**	1	Placebo	Placebo arm of no interest to therapeutic review.
FUSION, Jacobson, 2013 Randomized, active controlled trial.	2	1	**SOF12 + RBV12** (experienced)	1	**SOF16 + RBV16** (experienced, non-cirrhotic)	SOF duration: not recommended for 16 weeks except for in patients with cirrhosis. **NOTE: SOF16 + RBV16 recommended by AASLD for patients with G2 infection with cirrhosis, so SVR rate for patients with cirrhosis was extracted.**

STUDY NAME, AUTHOR, PUBLICATION YEAR	TOTAL N ARMS	NO. ARMS INCL.	INCLUDED ARMS	NO. ARMS EXCL.	EXCLUDED ARMS	REASON FOR EXCLUDING ARM(S)
ELECTRON, Gane, 2013 Randomized, non-controlled trial.	8	4	**SOF12 + RBV12** (naive)	4	SOF12 + RBV12 + PEG4	SOF monotherapy, PEG durations, and SOF + PR 8 weeks not approved by HC.
			SOF12 + PR12 (naive)		SOF12 + RBV12 + PEG8	
			SOF12 + RBV12 (experienced)		SOF12	
			SOF12 + RBV12 (naive)		SOF8 + PR8	
ELECTRON, Gane, 2014 Partially randomized, non-controlled trial.	7	3	**SOF12 + LDV12 + RBV12** (naive)	4	SOF12 + GS-9669 12 + RBV12	SOF combinations and/or durations not approved by HC; **(6) SOF12 + LDV12** not approved for use in patients with cirrhosis.
			SOF12 + LDV12 + RBV12 (experienced)		SOF/LDV6 + RBV6	
			SOF12 + LDV12 + RBV12 (experienced)		SOF12 + GS-9669 12 + RBV12	
					SOF12 + LDV12 (experienced, cirrhotic)	

AASLD = American Association for the Study of Liver Diseases; ASU = asunaprevir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; GT = genotype; HC = Health Canada; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PEG = pegylated interferon alfa; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 6: DETAILED STUDY CHARACTERISTICS

TABLE 77: SUMMARY OF RANDOMIZED CONTROLLED TRIALS FROM TR0007 — TREATMENT-NAIVE GENOTYPE 1 PATIENTS

AUTHOR, YEAR, STUDY NAME, DESIGN	N	POPULATION	ACTIVE COMPARATOR[a]	PLACEBO/ CONTROL GROUP[a]	COUNTRY	OUTCOMES, STUDY FOLLOW-UP
Studies Included in the NMA						
Buti et al. 2014, OPTIMIZE RCT, OL, NI Phase 3	740	Treatment-naive Genotype 1 CHC Age 18 to 70 years	• Telaprevir 750 mg q8h + Peg2a-R × 12 wks • Telaprevir 1,125 mg q12h with Peg2a-R × 12 wks Then 12 to 36 wks Peg2a-R (RGT)	—	Europe, N. America	SVR12/24, relapse, harms Up to 72 wks
Fried et al. 2013, PILLAR (C205) RCT, DB Phase 2	386	Treatment-naive Genotype 1 CHC Non-cirrhotic Adult	• Simeprevir 150 mg daily + Peg2a-R × 12 wks, then placebo + Peg2a-R × 12 wks • Simeprevir 75 mg daily + Peg2a-R × 12 wks, then placebo + Peg2a-R × 12 wks • Simeprevir 150 mg daily + Peg2a-R × 24 wks • Simeprevir 75 mg daily + Peg2a-R × 24 wks then stop therapy or Peg2a-R × 24 wks (RGT)	Peg2a-R + placebo × 24 wks, then Peg2a-R × 24 wks	N. America, Europe, Asia-Pacific	SVR12/24, relapse, treatment completion, harms 72 wks
Jacobson et al. 2011, ADVANCE RCT, DB Phase 3	1,088	Treatment-naive Genotype 1 CHC Age 18 to 70 years	• Telaprevir 750 mg q8h + Peg2a-R × 12 wks • Telaprevir 750 mg q8h + Peg2a-R × 8 wks, then Peg2a-R + placebo × 4 wks Then Peg2a-R × 12 to 36 wks (RGT)	Peg2a-R + placebo × 12 wks then Peg2a-R × 36 wks	N. America, Europe, Argentina, Australia, Israel	SVR12/24, relapse, treatment completion, HRQoL, harms 72 wks

AUTHOR, YEAR, STUDY NAME, DESIGN	N	POPULATION	ACTIVE COMPARATOR[a]	PLACEBO/ CONTROL GROUP[a]	COUNTRY	OUTCOMES, STUDY FOLLOW-UP
Marcellin et al. 2011, C208 RCT, OL Phase 2	161	Treatment-naive Genotype 1 CHC Non-cirrhotic Age 18 to 65 years	• Telaprevir 750 mg q8h + Peg2a-R × 12 wks • Telaprevir 750 mg q8h + Peg2b-R × 12 wks • Telaprevir 1,125 mg q12h with Peg2a-R × 12 wks • Telaprevir 1,125 mg q12h with Peg2b-R × 12 wks Then 12 to 36 wks Peg2a/b-R (RGT)	—	Austria, Belgium, France, Germany, Italy, Spain, Netherlands	SVR24, relapse, treatment completion, harms Up to 72 wks
Poordad et al. 2011, SPRINT-2 RCT, DB Phase 3	1,097	Treatment-naive Genotype 1 CHC Age > 18 years	Peg2b-R × 4 wks, then • Boceprevir 800 mg q8h + Peg2b-R × 24 wks, then stop therapy or Peg2b-R + placebo × 20 wks (RGT) • Boceprevir 800 mg q8h + Peg2b-R × 44 wks	Peg2b-R × 4 wks, then Peg2b-R + placebo × 44 wks	N. America, Europe, Latin America	SVR24, relapse, treatment completion, harms 72 wks
Studies Not Included in the NMA						
Sherman et al. 2011, ILLUMINATE RCT, OL, NI Phase 3	540	Treatment-naive Genotype 1 CHC Age 18 to 70 years	All patients received telaprevir 750 mg q8h + Peg2a-R × 12 wks, then Peg2a-R × 8 wks Patients with eRVR randomized to either • Peg2a-R × 4 wks • Peg2a-R × 28 wks Patients with no eRVR received Peg2a-R × 28 wks		Belgium, Netherlands, US	SVR12/24, relapse, treatment completion, harms 72 wks

CHC = chronic hepatitis C; DB = double-blind; eRVR = extended rapid virologic response; HRQoL = health-related quality of life; NI = non-inferiority study; NMA = network meta-analysis; OL = open-label; Peg2a/b-R = peginterferon 2a or 2b plus ribavirin; q8h = every 8 hours; q12h = every 12 hours; RCT = randomized controlled trial; RGT = response-guided therapy; SVR12/24 = sustained virologic response 12 or 24 wks after the end of treatment; wk = week.

Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Patients received the standard dose of peg-R (peginterferon 2a 180 mcg per week + ribavirin 1,000 mg if < 75 kg, or 1,200 mg if ≥ 75 kg, divided into two doses per day; peginterferon 2b 1.5 mcg/kg per week with weight-based ribavirin [800 mg to 1,400 mg]) except for Poordad et al. (ribavirin 600 mg to 1,400 mg/day).

TABLE 78: INCLUDED STUDY CHARACTERISTICS: TREATMENT-NAIVE (N = 21)

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	PHASE	RANDOMIZED (Y/N)	GENOTYPE					
							1	2	3	4	5	6
Included in the NMA (SVR)												
Afdhal et al., 2014 ION-1	870	≥ 18 years Genotype 1 ≤ 20% of patients with cirrhosis	SOF12 + LDV12 SOF24 + LDV24 SOF12 + LDV12 + RBV12 SOF24 + LDV24 + RBV24	USA, Europe	3	Yes	Y					
Feld et al., 2014 SAPPHIRE-I	636	18 to 70 years Genotype 1 No cirrhosis	PAR/RIT12 + OMB12 + DAS12 + RBV12	N. America, Europe, and Australia	3	Yes	Y					
Ferenci et al., 2014 PEARL-III	419	18 to 70 years Genotype 1b No evidence of cirrhosis	PAR/RIT12 + OMB12 + DAS12	USA, Asia, Europe	3	Yes	Y					
Ferenci et al., 2014 PEARL-IV	305	18 to 70 years Genotype 1b No evidence of cirrhosis	PAR/RIT12 + OMB12 + DAS12 + RBV12	Canada, USA, UK	3	Yes	Y					
Jacobson et al., 2014 QUEST-1	395	≥ 18 years Genotype 1 Patients with cirrhosis eligible	PR48 SIM12 + PR24-48 RGT	Canada, USA, Europe, and other countries	3	Yes	Y					

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	PHASE	RANDOMIZED (Y/N)	GENOTYPE					
							1	2	3	4	5	6
Kohli et al., 2015	60	≥ 18 years Genotype 1 ≤ 20% of patients with compensated cirrhosis	SOF12 + LDV12	USA	2a	No	Y					
Kowdley et al., 2013 ATOMIC	332	> 18 years Genotype 1 No cirrhosis	SOF12 + PR12	USA, Puerto Rico	2	Yes	Y					
Kowdley et al., 2014 ION-3	647	≥ 18 years Genotype 1 No cirrhosis	SOF12 + LDV12 SOF8 + LDV8 SOF8 + LDV8 + RBV8	USA	3	Yes	Y					
Lawitz et al., 2013 FISSION	527	> 18 years Genotype 2 or 3 With or without cirrhosis	SOF12 + RBV12 PR24	Canada, USA, Asian, Europe	3	Yes		Y				
Lawitz et al., 2013 NEUTRINO	327	> 18 years Genotype 1, 4, 5, 6 With or without cirrhosis	SOF12 + PR12	USA	3	No	Y			Y	Y	Y
Lawitz et al., 2013-1	122	18 to 70 years Genotype 1, 2 or 3 No cirrhosis	SOF12 PR24-48 RGT PR48	USA	2	Yes	Y					

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	PHASE	RANDOMIZED (Y/N)	GENOTYPE					
							1	2	3	4	5	6
Manns et al., 2014 QUEST-2	393	≥ 18 years Genotype 1 Patients with cirrhosis eligible	PR48 SIM12 PR24-48 RGT	USA, Europe, S. America	3	Yes	Y					
Osinusi et al., 2013 SPARE-1	10	> 18 years Genotype 1 No cirrhosis	SOF24 + RBV24	USA	2a	No	Y					
Osinusi et al., 2013 SPARE-2	50	> 18 years Genotype 1 ≤ 20% of patients may have cirrhosis	SOF24 + RBV24 SOF24 + RBV (low dose) 24	USA	2a	Yes	Y					
Osinusi et al., 2015	50	≥ 18 years Genotype 1 No cirrhosis HIV coinfection	SOF12 + LDV12	USA	2b	No	Y					
Sulkowski et al., 2013 P05411	99	18 to 65 years Genotype 1 HIV coinfection	PR48 B44 PR48	Canada, USA, Argentina, Brazil, Europe	2	Yes	Y					
Sulkowski et al., 2013	60	18 to 65 years Genotype 1 HIV coinfection	PR48 T12 PR48 q8	USA, Europe	2a	Yes	Y					

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	PHASE	RANDOMIZED (Y/N)	GENOTYPE					
							1	2	3	4	5	6
Not included in the NMA for All SVR												
Hassanein et al., 2015	21	18 to 70 years Genotype 1 No evidence of cirrhosis	DCV12 + ASU12 + BEC12 (75 mg b.i.d.) DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	USA	2a	Yes				N		
Lawitz et al., 2013-2	25	18 to 70 years Genotype 1, 2 or 3 No cirrhosis	SOF12 + PR12	USA	2	No	Y	Y				
Rodriguez-Torres et al., 2015	23	≥ 21 years Genotype 1 to 6 No evidence of cirrhosis HIV-1 coinfection	SOF12 + PR12	Puerto Rico	2	No	Y	Y	Y	Y	Y	Y
Zeuzem et al., 2015 C-EDGE	421	≥ 18 years Genotype 1, 4, or 6 (15% of patients having GT4 or GT6 infection) 20% of patients having cirrhosis	GRZ12 + ELB12	USA, Europe, Australia, Scandinavia, and Asia	3	Yes	Y			Y		Y

ASU = asunaprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; GT = genotype; LDV = ledipasvir; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 79: SUMMARY OF RANDOMIZED CONTROLLED TRIALS FROM TR0007 — TREATMENT-EXPERIENCED GENOTYPE 1 PATIENTS

AUTHOR, YEAR, STUDY NAME, DESIGN	N	POPULATION[a]	ACTIVE COMPARATOR[b]	PLACEBO/ CONTROL GROUP[b]	COUNTRY	OUTCOMES, FOLLOW-UP
Studies included in the NMA						
Bacon et al. 2011, RESPOND2 DB, RCT Phase 3	403	Prior non-response or relapse, genotype 1 CHC Age ≥ 18 years	Peg2b-R × 4 wks, then • Boceprevir 800 mg q8h + Peg2b-R × 32 wks, then Peg2b-R + placebo up to 12 wks (RGT), or • Boceprevir 800 mg q8h + Peg2b-R × 44 wks	Peg2b-R × 4 wks, then Peg2b-R + placebo × 44 wks	N. America, Europe	SVR24, relapse, treatment completion, harms 72 wks
Forns et al. 2014, PROMISE DB, RCT Phase 3	393	Relapsed, genotype 1 CHC Age ≥ 18 years	Simeprevir 150 mg daily + Peg2a-R × 12 wks, then Peg2a-R × 12 to 36 wks (RGT)	Peg2a-R + placebo × 12 wks, then Peg2a-R × 36 wks	N. America, Europe, Asia-Pacific	SVR12, relapse, harms (12 wks) 72 wks planned (60-wk data available)
Zeuzem et al. 2011, REALIZE DB, RCT Phase 3	662	No or partial response to previous therapy, genotype 1 CHC 18 to 70 years	• Telaprevir 750 mg q8h + Peg2a-R × 12 wks, then Peg2a-R × 36 wks[c] • Peg2a-R × 4 wks, then telaprevir 750 mg q8h + Peg2a-R × 12 wks, then Peg2a-R × 32 wk	Peg2a-R + placebo × 16 wks, then Peg2a-R × 32 wks	Europe, S. America, N. America	SVR12/24, relapse, treatment completion, harms 72 wks
Zeuzem et al. 2014, ASPIRE DB, RCT Phase 2b	462	Null or partial response, or relapse, after Peg-R; genotype 1 CHC 18 to 70 years	7 treatment groups[c] Simeprevir 100 mg or 150 mg daily for 12, 24, or 48 wks in combination with Peg2a-R × 48 wks	Peg2a-R + placebo × 48 wks	Europe, N. America, Australia, New Zealand	SVR12/24, relapse, treatment completion, harms 72 wks

CHC = chronic hepatitis C; DB = double-blind; N. = North; Peg2a/b-R = peginterferon 2a or 2b plus ribavirin; q8h = every 8 hours; RCT = randomized controlled trial; RGT = response-guided therapy; SVR12/24 = sustained viral response 12 or 24 weeks after the end of treatment; wk = week.

[a] Enrolled patients who did not achieve an SVR with peginterferon with ribavirin therapy for a minimum of 12 weeks in RESPOND2 and ASPIRE; 24 weeks in PROMISE; or 80% of intended dose in REALIZE.

[b] Patients received the following standard dose of peginterferon plus ribavirin: peg2a 180 mcg per week + ribavirin 1,000 mg if body mass < 75 kg, or 1,200 mg if body mass ≥ 75 kg, divided into two doses per day; peg2b 1.5 mcg/kg per week with weight-based ribavirin (800 mg to 1,400 mg), except for RESPOND2 (ribavirin 600 mg to 1,400 mg).

[c] Patients received placebo when not on direct-acting antivirals during the first 16, 24, or 48 weeks of treatment in the REALIZE and ASPIRE trials, respectively.

TABLE 80: INCLUDED STUDY CHARACTERISTICS – TREATMENT-EXPERIENCED (N = 12)

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	RANDOMIZED (Y/N)	GENOTYPE			
						1	2	3	4
Included in the NMA									
Afdhal et al., 2014 ION-2	441	≥ 18 years Genotype 1 Approximately 20% may have compensated cirrhosis	SOF12 + LDV12 SOF12 + LDV12 + RBV12 SOF24 + LDV24 SOF24 + LDV24 + RBV24	USA	Yes	Y			
Andreone et al., 2014 PEARL-II	95	18 to 70 years Genotype 1b No cirrhosis	PAR/RIT12 + OMB12 + DAS12	Europe, Puerto Rico, Turkey, USA	Yes	Y			
Bourlière et al., 2015 SIRIUS	155	≥ 18 years Genotype 1	SOF24 + LDV24 SOF12 + LDV12 + RBV12	France	Yes	Y			
Jensen et al., 2015 HALLMARK-QUAD	398	≥ 18 years Genotype 1 or 4	DCV24 + ASU24 + PR24	Canada, USA, Europe, Republic of Korea, Mexico, Taiwan	No	Y			Y
Lawitz et al., 2014	47	≥ 18 years Genotype 2 or 3	SOF12 + PR12	USA	No		Y	Y	
Lok et al., 2014	101	18 to 70 years Genotype 1 No evidence of liver cirrhosis	DCV24 + ASU24 DCV24 + ASU24 + PR24	USA, Puerto Rico, France	Yes	Y			

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	POPULATION	TREATMENTS	COUNTRIES	RANDOMIZED (Y/N)	GENOTYPE			
						1	2	3	4
Osinusi et al., 2014 SYNERGY	14	≥ 18 years Genotype 1 or 4 With or without cirrhosis	SOF12 + LDV12	USA	No	Y			
Pol S et al., 2015	80	18 to 70 years Genotype 1 No cirrhosis	SOF12 + PR12	USA, Europe, New Zealand	No	Y			
Reddy et al., 2015 ATTAIN	771	≥ 18 years Genotype 1	SIM12 PR48 T12 PR48 q8	Canada, USA, Australia, Israel, S. America, Europe	Yes	Y			
Wyles et al., 2015	51	≥ 18 years Genotype 1	SOF12 + LDV12 + RBV12	USA	No	Y			
Zeuzem et al., 2014 SAPPHIRE-II	395	18 to 70 years Genotype 1 No evidence of liver cirrhosis	PAR/RIT12 + OMB12 + DAS12 + RBV12	Europe, N. America, Australia	Yes	Y			
Not included in the NMA									
Forns et al., 2015 C-SALVAGE	79	≥ 18 years Genotype 1	GRZ12 + ELB12 + RBV12	USA, Austria, Israel, Spain	No	Y			

ASU = asunaprevir; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; q8 = every 8 hours; LDV = ledipasvir; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 81: INCLUDED STUDY CHARACTERISTICS — COMBINED TREATMENT EXPERIENCE (N = 24 + 2)

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
Included in the NMA for all SVR																
Dieterich et al., 2014	106	Combined	18 to 70 years Genotype 1 HIV coinfection	SIM12 PR24-48 RGT SIM12 PR48 SIM12 PR48	Europe, N. America	No	Y						Y			
Gane et al., 2013 ELECTRON	95	Combined	> 18 years Genotype 2 or 3 No cirrhosis	SOF12 + RBV12 SOF12 + PR12	New Zealand	Yes	Y	Y					Y			
Gane et al., 2014 ELECTRON	96	Combined	> 18 years Genotype 2 or 3 No cirrhosis	SOF12 + LDV12 + RBV12	New Zealand	Yes	Y						Y			
Jacobson et al., 2013 Fusion	202	Experienced	≥ 18 years Genotype 2 or 3 With or without cirrhosis	SOF12 + RBV12	USA, Canada, New Zealand	Yes								Y		
Kumada et al., 2014	259	Combined	20 to 75 years Genotype 1b ≤ 10% of patients could have compensated cirrhosis	DCV24 + ASU24	Japan	No	Y						Y			

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
Lalezari et al., 2015	38	Combined	18 to 70 years Genotype 1 No cirrhosis	PAR/RIT12 + OMB12 + DAS12 + RBV12	United States	No	Y									
Lawitz et al., 2014 COSMOS	168	Combined	18 to 70 years Genotype 1 METAVIR F3 or 4 fibrosis	SOF12+ SIM12 + RBV12 SIM12 + SOF12	USA, Puerto Rico	Yes	Y						Y			
Lawitz et al., 2014 LONESTAR	100	Combined	≥ 18 years Genotype 1 Cirrhosis	SOF8 + LDV8 SOF8 + LDV8 + RBV8 SOF12 + LDV12 SOF12 + LDV12 + RBV12	USA	Yes	Y						Y			
Manns et al., 2014 HALLMARK-DUAL	205	Naive	≥ 18 years Genotype 1b ≤ 25% of patients could have compensated cirrhosis	DCV24 + ASU24	N. and S. America, Europe, and Asia	Yes	Y						Y			
	440	Combined				No										
Mizokami et al., 2015	341	Combined	≥ 20 years Genotype 1 ≤ 40% of patients could have compensated cirrhosis	SOF12 + LDV12 SOF12 + LDV12 + RBV12	Japan	Yes	Y						Y			

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
Molina et al., 2015 PHOTON-2	275	Combined	≥ 18 years Genotype 1, 2, 3 or 4 for naive patients; genotype 2 or 3 for experienced patients HIV-1 coinfection	SOF24 + RBV24 SOF12 + RBV12	Australia, Europe	No	Y	Y	Y	Y				N	Y	
Muir et al., 2015 UNITY-2	202	Combined	≥ 18 years Genotype 1 Compensated cirrhosis	DCV12 + ASU12 + BEC12 + RBV12 DCV12 + ASU12 + BEC12	USA, Canada, France, Australia	Yes	Y						N			
Nelson D. et al., Accepted in 2015 ALLY-3 (AI444-218)	152 (Treatment-naive = 101; treatment-exp = 51)	Combined	≥ 18 years Genotype 3 Compensated cirrhosis eligible	DCV12 + SOF12	USA, Puerto Rico	No			Y						Y	
Omata M et al., 2014	153 (Treatment-naive = 90; treatment exp = 63)	Combined	≥ 20 years Genotype 2	SOF12 + RBV12	Japan	No		Y						Y		
Pearlman et al., 2015	93	Combined	≥ 18 years Genotype 1a Cirrhosis	SIM12 + SOF12 SOF12 + PR12	USA	Yes	Y						Y			

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
Poordad et al. et al., 2015 UNITY-1	415	Combined	≥ 18 years Genotype 1 No cirrhosis	DCV12 + ASU12 + BEC12	USA, Canada, France, Australia	No	Y						N			
Ruane et al., 2014	60	Combined	≥ 18 years Genotype 4 ≤ 20% of patients may have compensated cirrhosis	SOF12 + RBV12 SOF24 + RBV24	USA	Yes				Y						Y
Sulkowski et al., 2014	224	Combined	≥ 18 years Genotype 1, 2, or 3 for naive patients; genotype 2 or 3 for experienced patients < 20% of patients were permitted to have cirrhosis HIV coinfection	SOF12 + RBV12 SOF24 + RBV24	USA and Puerto Rico	No	Y	Y							Y	
Sulkowski et al., 2014	211	Combined	18 to 70 years Genotype 1, 2, or 3 No evidence of cirrhosis	DCV12 + SOF12	USA	Yes	Y									
Zeuzem et al., 2014	334	Combined	≥ 18 years Genotype 2 or 3	SOF12 + RBV12 SOF24 + RBV24	Europe	No			Y					Y	Y	

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
			Approximately 20% of patients could have cirrhosis													
Not included in the NMA for all SVR																
Jacobson et al., 2013 POSITRON	280	Combined	≥ 18 years Genotype 2 or 3 With or without cirrhosis	SOF12 + RBV12	USA, Canada, Australia, New Zealand	Yes										
Lawitz et al., 2015 C-WORTHY; Sulkowski et al., 2015 C-WORTHY	471	Combined	≥ 18 years Genotype 1 Part A: no cirrhosis Part B and C: with or without cirrhosis, or HIV coinfection without cirrhosis	GRZ12 + ELB12 (50 mg q.d.) GRZ18 + ELB18 (50 mg q.d.) GRZ12 + ELB12 (50 mg q.d.) + RBV12 GRZ18 + ELB18 (50 mg q.d.) + RBV18 GRZ12 + ELB12 + RBV12 GRZ8 + ELB8 (50 mg q.d.) + RBV8	USA, Asia, Europe, Canada	Yes	N						N			

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	TOTAL N	PREVIOUS TREATMENT EXPERIENCE	POPULATION	TREATMENTS	COUNTRIES	RANDOM-IZED (Y/N)	NAIVE GENOTYPE						EXPERIENCED GENOTYPE			
							1	2	3	4	5	6	1	2	3	4
Poordad et al., 2014 TURQUOISE-II	381	Combined	18 to 70 years Genotype 1 Compensated cirrhosis	PAR/RIT12 + OMB12 + DAS12 + RBV12 PAR/RIT24 + OMB24 + DAS24 + RBV24	Canada, USA, and Europe	Yes										
Sulkowski et al., 2015 TURQUOISE-I-1a	63	Combined	18 to 70 years Genotype 1 HIV-1 coinfection	PAR/RIT12 + OMB12 + DAS12 + RBV12	USA, Puerto Rico	Yes										

ASU = asunaprevir; BEC = beclabuvir; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.
NOTE: PLEASE REFER TO TREATMENT REGIMEN NOMENCLATURE TABLE FOR DESCRIPTION OF DOSAGES.

TABLE 82: INCLUDED STUDY CHARACTERISTICS — POST-LIVER TRANSPLANT RECIPIENTS (N = 2)

INCLUDED STUDIES	TOTAL N	POPULATION (NAIVE, EXPERIENCED)	POPULATION AGE	TREATMENTS	COUNTRIES	RANDOMIZED (Y/N)
Not included in the NMA for all SVR						
Charlton et al., 2015	40	Combined	≥ 18 years All genotypes	SOF24 + RBV24	USA, Europe, New Zealand	No
Kwo et al., 2014 CORAL-I	34	Combined	18 to 70 years Genotype 1 No evidence of cirrhosis (METAVIR score ≤ F2)	PAR/RIT24 + OMB24 + DAS24 + RBV24	USA, Spain	No

DAS = dasabuvir; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; RBV = ribavirin; RIT = ritonavir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 7: DETAILED PATIENT CHARACTERISTICS

TABLE 83: TREATMENT-NAIVE

INCLUDED STUDIES	ITT, N[a]	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	HEPATITIS C GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					1	G1a	1b	2	3	4	5	6	COMBINED OR OTHER	CIRR-HOTIC[b]	NON-CIRRHOTIC	
Afdhal et al., 2014 ION-1	214	SOF12 + LDV12	52 (mean) (18 to 75)	59	--	67	31	-	-		-	-		16	84	6.4 (0.69)
	217	SOF24 + LDV24	53 (mean) (22 to 80)	64	--	67	31	-	-	-	-	-		15	85	6.3 (0.68)
	217	SOF12 + LDV12 + RBV12	52 (mean) (18 to 78)	59	--	68	31	-	-	-	-	-		15	85	6.4 (0.64)
	217	SOF24 + LDV24 + RBV24	53 (mean) (24 to 77)	55	--	66	33	-	-		-	-		17	83	6.3 (0.65)
Feld et al., 2014 SAPPHIRE-I	477	PAR/RIT12 + OMB12 + DAS12 + RBV12	49.4 (18 to 70.0)	57	100	68	32	-	-	-	-	-	-	-	100	6.40 (0.62)
Ferenci et al., 2014 PEARL-III	209	PAR/RIT12 + OMB12 + DAS12	49.2 (12.0)	41	100	0	100	-	-	-	-	-	-	0	100	6.33 (0.67)
Ferenci et al., 2014 PEARL-IV	100	PAR/RIT12 + OMB12 + DAS12 + RBV12	51.6 (11.0)	70	100	100	-	-	-	-	-	-	-	0	100	6.64 (0.50)
Jacobson et al., 2014 QUEST-1	130	PR48	48 (36 to 54)	57	100	57	43	-	-	-	-	-	-	13	87	-
	264	SIM12 PR24-48 RGT	48 (39 to 54)	56	100	56	44	-	-	-	-	-	-	12	87	-
Kohli et al., 2015	20	SOF12 + LDV12	57 (8)	70	100	55	45	-	-	-	-	-	-	-	-	-

INCLUDED STUDIES	ITT, N[a]	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	HEPATITIS C GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					1	G1a	1b	2	3	4	5	6	COMBINED OR OTHER	CIRR-HOTIC[b]	NON-CIRRHOTIC	
Kowdley et al., 2013 ATOMIC	52	SOF12 + PR12	51 (9.8)	67	100	77	23	-	-	-	-	-	0	-	100	6.5 (0.7)
Kowdley et al., 2014 ION-3	216	SOF12 + LDV12	53 (20 to 71)	59	100	80	20	-	-	-	-	-	-	-	100	6.4 (0.8)
	215	SOF8 + LDV8	53 (22 to 75)	60	100	80	20	-	-	-	-	-	< 1	-	100	6.5 (0.8)
	216	SOF8 + LDV8 + RBV8	51 (21 to 71)	54	100	80	20	-	-	-	-	-	-	-	100	6.4 (0.7)
Lawitz et al., 2013 FISSION	256	SOF12 + RBV12	48 (20 to 72)	67	< 2	1	< 1	27	71	-	-	-	< 2	20	80	6.4 (0.7)
	243	PR24	48 (19 to 77)	64	-	-	-	28	72	-	-	-	-	21	79	6.0 (0.8)
Lawitz et al., 2013 NEUTRINO	327	SOF12 + PR12	52 (19 to 70)	64	89	69	20	-	-	9	< 1	2	< 1	17	83	6.4 (0.7)
Lawitz et al., 2013-1	47	SOF12 + PR24-48 RGT	51.4 (9.4)	45	100	74	26	-	-	-	-	-	-	-	100	6.4 (0.8) IU/mL
	26	PR48	48.6 (9.4)	73	100	77	23	-	-	-	-	-	-	-	100	6.5 (0.8)
Manns et al., 2014 QUEST-2	134	PR48	47 (18 to 73)	57	100	41	58	-	-	-	-	-	2	11	89	-
	257	SIM12 PR24-48 RGT	46 (18 to 73)	54	100	41	58	-	-	-	-	-	< 1	7	93	-
Osinusi et al., 2013 SPARE-1	10	SOF24 + RBV24	54 (50 to 57)	40	100	60	40	-	-	-	-	-	-	-	-	6.8 (6 to 7.1)

INCLUDED STUDIES	ITT, N[a]	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	HEPATITIS C GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					1	G1a	1b	2	3	4	5	6	COMBINED OR OTHER	CIRR-HOTIC[b]	NON-CIRRHOTIC	
Osinusi et al., 2013 SPARE-2	25	SOF24 + RBV24	54 (51 to 56)	76	100	80	20	-	-	-	-	-	-	-	-	6.2 (5.4 to 6.4)
	25	SOF24 + RBV (low dose) 24	55 (48 to 59)	56	100	64	36	-	-	-	-	-	-	-	-	6.1 (5.5 to 6.3)
Osinusi et al., 2015	50	SOF12 + LDV12	58-59 (median) (51 to 63)	74	100	78	20	0	0	0	0	0	2	-	100	5.948 (--)
Sulkowski et al., 2013-1	6	PR48	48 (42 to 65)	67	100	50	33	-	-	-	-	-	17	0	100	6.2 (0.5)
	7	T12 PR48 q8	39 (34 to 50)	86	100	43	57	-	-	-	-	-		0	100	6.7 (0.5)
Sulkowski et al., 2013-2	8	PR48	39 (26 to 53)	88	100	63	38	-	-	-	-	-		0	100	6.5 (0.6)
	15	T12 PR48 q8	52 (36 to 59)	87	100	80	20	-	-	-	-	-		0	100	6.4 (0.9)
Sulkowski et al., 2013 P05411	34	PR48	45.1 (9.8)	65	100	74	26	-	-	-	-	-		3	97	6.8 (6.2 to 7.1)
	64	B44 PR48	42.9 (8.3)	72	98	80	19	-	-	-	-	2		3	97	6.6 (6.2 to 7.0)
Hassanein et al., 2015	11	DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	56 (37 to 66)	64	0	0	0	0	0	100	0	0	-	0	100	5.6 (0.66)
	10	DCV12 + ASU12 + BEC12	50 (22 to 57)	60	0	0	0	0	0	100	0	0	-	0	100	5.7 (0.70)

INCLUDED STUDIES	ITT, N[a]	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	HEPATITIS C GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					1	G1a	1b	2	3	4	5	6	COMBINED OR OTHER	CIRR-HOTIC[b]	NON-CIRRHOTIC	
		(150 mg b.i.d.)														
Lawitz et al., 2013-2	25	SOF12 + PR12	47.2 (11.1)	64	-	-	-	60	40	-	-	-	-	-	100	6.1 (0.8) IU/mL
Rodriguez-Torres et al., 2015	23	SOF12 + PR12	47 (29 to 59)	78	83	65	17	4	9	4	0	0	0	-	100	6.586 (0.872)
Zeuzem et al., 2015 C-EDGE	316	GRZ12 + ELB12	52.2 (11.1)/54 (20 to 78)	54	92	50	42	-	-	6	-	3		22	78	6.4 (6.5)

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; G = genotype; GRZ = grazoprevir; ITT = intention-to-treat; IU = international unit; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SD = standard deviation; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Some numbers refer to the numbers of patients who were randomized and treated. For single-arm studies, the number refers to those who were enrolled and treated.
[b] The numbers here all refer to compensated cirrhosis, because patients with hepatic decompensation were excluded in treatment-naive studies.

TABLE 84: PATIENT CHARACTERISTICS — STUDIES OF TREATMENT-NAIVE PATIENTS FROM TR0007

AUTHOR, YEAR, STUDY NAME	TREATMENT GROUP	ITT, N	AGE, MEAN (SD) OR MEDIAN (RANGE)	% MALE	HCV GENOTYPE SUBTYPE (%)		METAVIR FIBROSIS SCORE (%)					VIRAL LOAD, MEAN LOG_{10} (SD)
					1a	1b	F0	F1	F2	F3	F4	
Studies not included in the NMA												
Buti et al. 2014, OPTIMIZE	T12 PR24/48 2a RGT q8	371	48 (11)	63	56	43	48[a]		23	16	13	6.5 (0.7)
	T12 PR24/48 2a RGT q12	369	48 (11)	57	57	43	47[a]		26	13	15	6.5 (0.7)
Fried et al. 2013, PILLAR (C205)	PR48 2a	77	45 (21 to 67)	51	38	NR	12	46	34	9	0	6.4 (0.6)
	SIM12 PR24/48 2a RGT	77	47 (18 to 69)	56	49	NR	16	42	34	9	0	6.5 (0.5)
Jacobson et al. 2011, ADVANCE	PR48 2a	361	49 (18 to 69)	58	58	42	41[a]		39	14	6	6.3 (0.7)
	T12 PR24/48 2a RGT q8	363	49 (19 to 69)	59	59	41	37[a]		43	14	6	6.3 (0.7)
Marcellin et al. 2011, C208	T12 PR24/48 2a RGT q8	40	46.5 (23 to 63)	50	53	45	38[a]		40	20	3	6.4 (NR)
	T12 PR24/48 2b RGT q8	42	45.5 (20 to 65)	48	55	45	36[a]		38	24	2	6.7 (NR)

AUTHOR, YEAR, STUDY NAME	TREATMENT GROUP	ITT, N	AGE, MEAN (SD) OR MEDIAN (RANGE)	% MALE	HCV GENOTYPE SUBTYPE (%)		METAVIR FIBROSIS SCORE (%)					VIRAL LOAD, MEAN LOG_{10} (SD)
					1a	1b	F0	F1	F2	F3	F4	
	T12 PR24/48 2a RGT q12	40	40 (22 to 61)	53	53	48	55[a]		28	18	0	6.5 (NR)
	T12 PR24/48 2b RGT q12	39	49 (19 to 63)	49	44	56	28[a]		33	31	5	6.7 (NR)
Poordad et al. 2011, SPRINT-2	PR48 2b	363	49 (10)	57	63	33	5	68	18	3	4	6.5 (NR)
	B24 PR28/48 2b RGT	368	50 (9)	62	64	34	5	65	17	5	4	6.5 (NR)
Studies not included in the NMA												
Sherman et al. 2011, ILLUMINATE	T12 PR24 2a RGT eRVR q8	162	51 (22 to 70)	64	71	28	28[a]		48	12	11	6.3 (0.9)
	T12 PR48 2a RGT eRVR q8[b]	160	50 (19 to 67)	61	73	27	30[a]		49	13	8	6.4 (0.7)
	T12 PR48 2a RGT no eRVR q8	118	51 (20 to 63)	59	71	28	23[a]		42	25	10	6.7 (0.6)
	Discontinued before week 20[b]	100	52 (21 to 66)	54	72	27	26[a]		38	17	19	6.4 (0.7)

B = boceprevir; eRVR = extended rapid virological response; F0 = no fibrosis; F1 = portal fibrosis without septa; F2 = portal fibrosis with rare septa; F3 = numerous septa without cirrhosis; F4 = cirrhosis; HCV = hepatitis C virus; ITT = intention-to-treat; NMA = network meta-analysis; NR = not reported; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RGT = response-guided therapy; SD = standard deviation; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Proportion of patients with METAVIR F0 or F1.
[b] Not a Health Canada–recommended dosage regimen.

TABLE 85: TREATMENT-EXPERIENCED

INCLUDED STUDIES	ITT N	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	CIRRHOTIC	NON-CIRRHOTIC	
Included in the NMA for all SVR																						
Afdhal et al., 2014 ION-2	109	SOF12 + LDV12	56 (6.9)/57 (24 to 67)	68	39	61	0		55	45	0		79	21						20	80	6.5 (0.44)
	111	SOF12 + LDV12 + RBV12	57 (8.0)/59 (27 to 75)	64	42	58	0		59	41	0		79	21						20	80	6.4 (0.54)
	109	SOF24 + LDV24	56 (8.3)/58 (25 to 68)	68	54	46	0		55	45	0		78	22						20	80	6.4 (0.57)
	111	SOF24 + LDV24 + RBV24	55 (7.8)/56 (28 to 70)	61	54	46	0		54	46	0		79	21						20	80	6.5 (0.60)
Andreone et al., 2014 PEARL-II	91	PAR/RIT12 + OMB12 + DAS12	54.2 (10.5)/NR (NR)	60	100	0	0		36.8	34.7	28.4			100						NA	100	6.48 (0.53)
Bourlière et al., 2015 SIRIUS	78	SOF24 + LDV24	57 (10.7)	72	100	100	0	0	100			1	64	35	0	0	0	0	0	100	0	Mean (SD): 6.5 (0.6)
	77	SOF12 + LDV12 + RBV12	56 (7.4)	75	100	100	0	0	100			1	62	36	0	0	0	0	0	98.7	1.3	Mean (SD): 6.5 (0.5)
Jensen et al., 2015 HALLMARK-QUAD	398	DCV24 + ASU24 + PR24	Median (range): 52.7 (19 to 76)	68.6	100	0	0	0	0	67	33	0	44	45	0	0	11	0	0	23.4	76.6	Mean (SD): 6.50 (0.528) for genotype 1 and 6.08 (0.549) for genotype 4
Lawitz et al., 2014	47	SOF12 + PR12	56 (range 39 to 72)	68	100	0	0	0	--	--	--	0	0	0	49	51	0	0	0	55	45	6.2 (0.7)

INCLUDED STUDIES	ITT N	TREATMENT GROUPS	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
					PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	CIRRHOTIC	NON-CIRRHOTIC	
Lok et al., 2014 DUAL A2	20	DCV24 + ASU24	NR (NR)/ 54 (NR)	65	100	0	0		0	100	0		0	100						-	100	6.6 (0.5)
Lok et al., 2014 QUAD B2	21	DCV24 + ASU24 + PR24	NR (NR)/ 50 (NR)	57	100	0	0		0	100	0		90	10						-	100	6.5 (0.6)
Osinusi et al., 2014 SYNERGY	14	SOF12 + LDV12	NR (NR)/59 (48 to 70)	93	0	Other: DAA + R (100)	0		100	0	0		57	43						--	--	Median (range): 6.31 (5.50 to 6.76)
Pol et al., 2015	80	SOF12 + PR12	55 (10.9)	75	--	99 (79/80)	--	1 (1/80)	--	--	--	100	85	15	0	0	0	0	0	-	100	6.6 (0.5)
Reddy et al., 2015 ATTAIN	379	SIM12 PR48	Median (range): 50 (18 to 69)	64	100	0	0	0	0	62	38	0	43	57	0	0	0	0	0	23	77	Median (range): 6.56 (4.5 to 7.7)
	384	T12 PR48 q8	Median (range): 52 (20 to 69)	58	100	0	0	0	0	62	38	< 1	42	57	0	0	0	0	0	20	80	Median (range): 6.57 (4.5 to 7.6)
Wyles et al., 2015	51	SOF12 + LDV12 + RBV12	54 (8.7)	61	10	49	2	39	--			98	59	39	0	2	0	0	0	27	73	6.2 (range: 4.4 to 7.3)
Zeuzem et al., 2014 SAPPHIRE-II	297	PAR/ RIT12 + OMB12 + DAS12 + RBV12	51.7 (NR)/NR (19.0 to 71.0)	56	100	0	0		29	49.2	21.9		58	41						-	100	Mean: 6.55 (range: 4.61 to 7.70)
Forns et al., 2015 C-SALVAGE	79	GRZ12 + ELB12 + RBV12	Mean 54.4	58	0	100	0	0	33	51		100	38	62	0	0	0	0	0	43	57	6.1 (0.5)

ASU = asunaprevir; BEC = beclabuvir; DAA = direct-acting antiviral; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; ITT = intention-to-treat; LDV = ledipasvir; NMA = network meta-analysis; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SD = standard deviation; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.

NOTE: PLEASE REFER TO TREATMENT REGIMEN NOMENCLATURE TABLE FOR DESCRIPTION OF DOSAGES.

TABLE 86: PATIENT CHARACTERISTICS — STUDIES OF TREATMENT-EXPERIENCED PATIENTS FROM TR0007

AUTHOR, YEAR, STUDY NAME	TREATMENT GROUP	ITT, N	AGE, MEAN (SD) OR MEDIAN (RANGE)	% MALE	TREATMENT HISTORY WITH PR (%)			HCV GENO-TYPE SUBTYPE (%)		METAVIR FIBROSIS SCORE (%)					VIRAL LOAD, MEAN LOG_{10} (SD)/ MEDIAN (RANGE)
					RELAPSE	PARTIAL	NULL	1a	1b	F0	F1	F2	F3	F4	
Studies included in the NMA															
Bacon et al. 2011, RESPOND2	PR48 2b	80	52.9 (8.0)	72	64	36	0	58	42	6	54	16	6	13	6.5 (0.7)
	B32 PR36/48 2b RGT	162	52.9 (7.4)	60	65	35	0	58	41	5	49	19	9	10	6.6 (0.5)
	B44 PR48 2b	161	52.3 (7.7)	70	64	36	0	60	38	3	48	22	6	14	6.7 (0.6)
Forns et al. 2014, PROMISE	PR48 2a	133	50.3 (10.76)	59	100	0	0	41	59	36[a]		39	11	14	6.5 (0.6)
	SIM12 PR24/48 2a RGT	260	49.7 (10.27)	69	100	0	0	42	57	35[a]		32	18	16	6.4 (0.6)
Zeuzem et al. 2011, REALIZE	PR48 2a	132	49.9 (9.74)	67	52	20	28	45	45	27[a]		29	22	23	6.6 (SE 0.05)
	T12 PR48 2a q8	266	50.7 (8.51)	69	55	18	27	44	45	19[a]		31	23	27	6.6 (SE 0.03)
	T12 PR48 2a LI q8[b]	264	51 (8.24)	72	53	18	28	46	44	26[a]		27	22	25	6.6 (SE 0.04)
Zeuzem et al. 2014, ASPIRE	PR48 2a	66	50.5 (22 to 66)	64	41	35	24	41	59	11	28	25	20	16	6.6 (5.2 to 7.6)
	SIM12 PR48 2a	66	48 (20 to 63)	68	39	35	26	46	55	8	29	27	17	20	6.6 (3.5 to 7.5)

B = boceprevir; F0 = no fibrosis; F1 = portal fibrosis without septa; F2 = portal fibrosis with rare septa; F3 = numerous septa without cirrhosis; F4 = cirrhosis; HCV = hepatitis C virus; ITT = intention-to-treat; NMA = network meta-analysis; PR = pegylated interferon 2a or 2b plus ribavirin; q8 = every 8 hours; RGT = response-guided therapy; SD = standard deviation; SE = standard error; T = telaprevir.

Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

[a] Proportion of patients with METAVIR F0 or F1.

[b] Not a Health Canada–recommended dosage regimen.

TABLE 87: COMBINED TREATMENT EXPERIENCE

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Studies included in the NMA																							
Dieterich et al., 2014	Naive	53	SIM12 PR24-48 RGT	Median 48.0 (range 27 to 67)	91	NA	NA	NA	NA	0	0	0	100	79	19	0	0	0	0	0	G1d (1.9)	5.70	94.3	6.57 (4.9 to 7.4)
	Exp	15	SIM12 PR24-48 RGT	Median 49.0 (range 34 to 67)	67	100	NA	NA	NA	100	0	0	100	80	20	0	0	0	0	0	0	6.7	93.3	6.45 (5.4 to 7.2)
	Exp	10	SIM12 PR48	Median 48.0 (range 43 to 57)	90	100	NA	NA	NA	0	0	100	100	90	10	0	0	0	0	0	0	10	90	6.22 (5.7 to 7.1)
	Exp	28	(SIM12 PR48	Median 47.0 (range 31 to 58)	82	100	NA	NA	NA	0	100	0	100	86	14	0	0	0	0	0	0	28.6	71.4	6.49 (5.3 to 7.5)
Gane et al., 2013-1 ELECTRON	Naive	10	SOF12 + RBV12	Mean 47 (range 36 to 53)	80	NA	NA	NA	NA	NA	NA	NA	0	0	0	40	60	0	0	0	0	NA	100	Median 6.7 (range 5.7 to 7.1)
		11	SOF12 + PR12	Mean 46 (range 37 to 57)	82	NA	NA	NA	NA	NA	NA	NA	0	0	0	36	64	0	0	0	0	NA	100	Median 6.5 (range 5.1 to 7.3)
Gane et al., 2013-2 ELECTRON	Exp	10	SOF12 + RBV12	Mean 48 (range 30 to 58)	70	NR	NR	0	[a]	0	100	0	100	90	10	0	0	0	0	0	0	NA	100	Median 7.0 (range 5.6 to 7.5)
Gane et al., 2013-3 ELECTRON	Naive	25	SOF12 + RBV12	Mean 49 (range 22 to 69)	60	NA	NA	NA	NA	NA	NA	NA	100	88	12	0	0	0	0	0	0	NA	100	Median 6.2 (range 4.4 to 7.2)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Gane et al., 2014-1 ELECTRON	Naive	25	SOF12 + LDV12 + RBV12	Mean 45 (SD 9.2)	32	NA	NA	NA	NA	NA	NA	NA	100	80	20	0	0	0	0	0	0	NA	100	Mean 5.9 (SD 0.9)
Gane et al., 2014-2 ELECTRON	Exp	9	SOF12 + LDV12 + RBV12	Mean 50 (SD 13)	78	NR	NR	0	[a]	0	100	0	100	89	11	0	0	0	0	0	0	NA	100	Mean 6.9 (SD 0.2)
Gane et al., 2014-3 ELECTRON	Exp	9	SOF12 + LDV12 + RBV12	Mean 57 (SD 5.2)	89	NR	NR	0	[a]	0	100	0	100	78	22	0	0	0	0	0	0	NA	0	Mean 6.3 (SD 0.8)
Jacobson et al., 2013 Fusion	Exp	103	SOF12 + RBV12	Mean 54 (range 30 to 69)	71	NR	NA	NA	[a]	76	24		3	NR	NR	35	62	0	0	0	0	35	65	6.5 (SD 0.67)
KuMada et al., 2014	Naive	135	DCV24 + ASU24	NR (NR)/64.0 (24 to 75)	28	0	0	0		0	0	0			100							8.1	91.9	6.6 (0.58)
	Exp	87	DCV24 + ASU24	NR (NR)/ 60.0 (42 to 74)	45	100	0	0		0	55.2	41.4			100							12.6	87.4	6.8 (0.47)
Lalezari et al., 2015	Combined	38	PAR/RIT12 + OMB12 + DAS12 + RBV12	48.2 (11.0)	66	5.3	NA	NA	0	NR	NR	NR	100	84	NR	0	0	0	0	0	0	0	100	6.58 (0.70)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Lawitz et al., 2014 COSMOS	Exp	27	SOF12+ SIM12+ RBV 12	NR (NR)/55 (28 to 67)	74	100	0	0		0	100	0		78	22							0	100	6.7 (0.44)
		14	SIM12 + SOF12	NR (NR)/56 (35 to 68)	58	100	0	0		0	100	0		71	29							0	100	6.7 (0.32)
	Combined	27	SOF12+ SIM12+ RBV 12	NR (NR)/57 (36 to 68)	74	56	0	0		0	56	0		81	19							41	59	6.6 (0.52)
		14	SIM12 + SOF12	NR (NR)/58 (47 to 64)	71	50	0	0		0	50	0		79	21							50	50	6.7 (0.48)
Lawitz et al., 2014 LONE-STAR	Naive	20	SOF8 + LDV8	48 (10.7)/NR (NR)	70	0	0	0		0	0	0		85	15							0	100	6.1 (0.8)
		21	SOF8 + LDV8 + RBV8	50 (11.1)/NR (NR)	57	0	0	0		0	0	0		90	10							0	100	6 (0.8)
		19	SOF12 + LDV12	46 (11.6)/NR (NR)	58	0	0	0		0	0	0		89	11							0	100	6.1 (0.8)
	Exp	19	SOF12 + LDV12	54 (6.6)/ NR (NR)	79	0	100	0		37	63	0		95	5							58	42	6.3 (0.5)
		21	SOF12 + LDV12 + RBV12	52 (9.8)/ NR (NR)	67	0	100	0		29	71			76	24							52	48	6.2 (0.4)
Manns et al., 2014 HALLMARK-DUAL	Naive	205	DCV24 + ASU24	NR (NR)/55 (20 to 79)	49	NA	NA	NA		NA	NA	NA			100							16	84	NR
	Exp	205	DCV24 + ASU24	NR (NR)/58 (23 to 77)	54	100	0	0		1	58	41			100							31	69	NR

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
	Combined	235	DCV24 + ASU24	NR (NR)/60 (24 to 77)	42	NR	0	0	[b]	0	0	0			100							47	53	NR
Mizokami et al., 2015 NA	Naive	83	SOF12 + LDV12	60 (9.2)	40	NA	NA	NA	NA	NA	NA	NA	100	4	96	0	0	0	0	0	0	24	76	6.6 (0.5)
	Exp	88				61	19	NR	NR	0.5	0.33													
	Naive	83	SOF12 + LDV12 + RBV12	59 (9.5)	43	NA	NA	NA	NA	NA	NA	NA	100	2	98	0	0	0	0	0	0	21	79	6.6 (0.5)
	Exp	87				54	26	NR	NR	0.51	0.32													
Molina et al., 2015 PHOTON-2	Naive	112	SOF24 + RBV24	Median (range): 45 (18 to 64)	89	NA	NA	NA	NA	NA	NA	NA	100	89	10	0	0	0	0	0		15	85	6.3 (0.7)
	Naive	19	SOF12 + RBV12	Median (range): 55 (41 to 73)	79	NA	NA	NA	NA	NA	NA	NA	0	0	0	100	0	0	0	0		5	95	6.7 (0.7)
	Exp	6	SOF24 + RBV24	Median (range): 55 (37 to 67)	100	NR	NR	NR	NR	NR	NR	NR	0	0	0	100	0	0	0	0		33	67	Mean (SD): 6.4 (0.6)
	Naive	57	SOF24 + RBV24	Median (range): 47 (28 to 57)	67	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	100	0	0	0		5	95	Mean (SD): 6.3 (0.7)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
	Exp	49	SOF24 + RBV24	Median (range): 49 (30 to 66)	78	NR	NR	NR	NR	NR	NR	NR	0	0	0	0	100	0	0	0		47	53	Mean (SD): 6.3 (0.8)
	Naive	31	SOF24 + RBV24	Median (range): 47 (28 to 55)	77	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	0	100	0	0		26	74	Mean (SD): 5.9 (0.9)
Muir et al., 2015 UNITY-2	Naive	55	DCV12 + ASU12 + BEC12 + RBV12	59 (35 to 73)	64	0	0	0	0	0	0	0	98	71	27	0	0	0	0	2	0	100	0	6.36 (0.84)
		57	DCV12 + ASU12 + BEC12	58 (25 to 75)	68	0	0	0	0	0	0	0	100	70	30	0	0	0	0	0	0	100	0	6.48 (0.62)
	Exp	45	DCV12 + ASU12 + BEC12 + RBV12	60 (48 to 73)	60	NR	NR	NR	100	17.8	35.6	4.4	100	78	22	0	0	0	0	0	0	100	0	6.65 (0.49)
		45	DCV12 + ASU12 + BEC12	59 (19 to 76)	71	NR	NR	NR	100	17.8	42.2	13.3	100	78	22	0	0	0	0	0	0	100	0	6.75 (0.36)
Nelson D. et al., 2015 ALLY-3 (AI444-218)	Naive	101	DCV12 + SOF12	53 (range 24 to 67)	58	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	100	0	0	0	0	19	81	NR
	Exp	51	DCV12 + SOF12	58 (range 40 to 73)	63	NR	NR	NR	NR	61	14	4	0	0	0	0	100	0	0	0	0	25	75	NR
Omata et al., 2014	Naive	90	SOF12 + RBV12	55 (range 25 to 73)	37	NA	NA	NA	NA	NA	NA	NA	0	0	0	100	0	0	0	0	[c]	9	91	6.2 (0.92)
	Exp	63	SOF12 + RBV12	60 (range 34 to 74)	59	NR	NR	NR	NR	71	NR	NR	0	0	0	100	0	0	0	0	[d]	14	86	6.5 (0.66)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Pearlman et al., 2015	Naive	62	SIM12 + SOF12	59.9 (mean)	66	NA	NA	NA	NA	NA	NA	NA	100	100	NA	NA	NA	NA	NA	NA	NA	100	NA	6.22 (0.44)
	Exp		SIM12 + SOF12			100	NA	NA	NA	NA	100	NA												
	Naive	31	SOF12 + PR12	55 (mean)	63	NA	NA	NA	NA	NA	NA	NA	100	100	NA	NA	NA	NA	NA	NA	NA	100	NA	6.41 (0.59)
	Exp		SOF12 + PR12			100	NA	NA	NA	NA	100	NA												
Poordad et al. et al., 2015 UNITY-1	Naive	312	DCV12 + ASU12 + BEC12	53.5 (range 19 to 77)	56	0	0	0	0	0	0	0	100	73	27	0	0	0	0	0	0	NA	100.0	21.8% < 800,000 IU/mL
	Exp	103	DCV12 + ASU12 + BEC12	57.0 (range 22 to 69)	62	NR	NR	NR	100	37.9	24.3	11.7	100	73	27	0	0	0	0	0	0	NA	100.0	9.7% < 800,000 IU/mL
Ruane et al., 2014	Naive	31	SOF12 + RBV12	53 (mean) (26 to 72)	71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	23	77.419	6.0 (4.7 to 7.0)
	Exp		SOF12 + RBV12			100	0	0	12	29	59	NR												
	Naive	29	SOF24 + RBV24	55 (mean) (27 to 75)	66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	24	75.86	6.0 (4.3 to 7.2)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
	Exp		SOF24 + RBV24			100	0	0	26	7	67	NR												
Sulkowski et al., 2014	Naive	68	SOF12 + RBV12	49 (mean) (24 to 71)	80.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.2	61.8	NA	NA	NA	NA	10.3	89.7	6.3 ± 0.60
	Naive	114	SOF24 + RBV24	48 (mean) (25 to 70)	81.6	NA	NA	NA	NA	NA	NA	NA	100	78.9	21.1	NA	NA	NA	NA	NA	NA	4.4	95.6	6.6 ± 0.83
	Exp	41	SOF24 + RBV24	54 (mean) (34 to 68)	90.2	100	NA	NA	NA	NR	NR	NR	NA	NA	NA	58.5	41.5	NA	NA	NA	NA	24.4	75.6	6.5 ± 0.69
Sulkowski et al., 2014	Naive	41	DCV12 + SOF12	55 (NR)	49	NA	NA	NA	NA	NA	NA	NA	100	83	17	0	0	0	0	0	NA	NA	100	6.2 (0.5)
Zeuzem et al., 2014	Naive	32	SOF12 + RBV12	58 (mean) (28 to 74)	55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	15.0	84.9	6.5 ± 0.7
	Exp	41				NA	NA	NA	100	38	14	4												
	Naive	105	SOF24 + RBV24	48 (mean) (19 to 69)	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	24.0	76.0	6.3 ± 0.7
	Exp	145				NA	NA	NA	100	38	16	4												

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Not Included in the NMA for all SVR																							
Jacobson et al., 2013 POSITRON	Combined	207	SOF12 + RBV12	Mean 52 (range 21 to 75)	57	NA	NA	NA	NR	5	1		0	0	0	53	47	0	0	0	0	15	85	6.3 (SD 0.77)
Lawitz et al., 2015-1 C-WORTHY	Naive	29	GRZ12 + ELB12 (50 mg q.d.)	59.0 (7.8)	66	0	0	0	NA	NA	NA	NA	100	69	24	NA	NA	NA	NA	NA	7	100	0	6.43 (0.61)
		31	GRZ18 + ELB18 (50 mg q.d.)	58.9 (8.0)	68	0	0	0	NA	NA	NA	NA	100	74	26	NA	NA	NA	NA	NA	NA	97	3	6.60 (0.53)
		31	GRZ12 + ELB12 (50 mg q.d.) + RBV12	57.0 (7.0)	61	0	0	0	NA	NA	NA	NA	100	65	32	NA	NA	NA	NA	NA	3	100	0	6.53 (0.61)
		32	GRZ18 + ELB18 (50 mg q.d.) + RBV18	58.8 (8.2)	47	0	0	0	NA	NA	NA	NA	100	75	25	NA	NA	NA	NA	NA	NA	100	0	6.40 (0.53)
Lawitz et al., 2015-2 C-WORTHY	Exp	33	GRZ12 + ELB12 (50 mg q.d.)	54.4 (9.1)	61	100	0	0	NA	NA	100	NA	100	67	33	NA	NA	NA	NA	NA	NA	42	58	6.67 (0.42)
		32	GRZ12 + ELB12 (50 mg q.d.) + RBV12	52.2 (8.8)	63	100	0	0	NA	NA	100	NA	100	56	44	NA	NA	NA	NA	NA	NA	34	66	6.64 (0.57)
		32	GRZ18 + ELB18	54.3 (12.3)	56	100	0	0	NA	NA	100	NA	100	53	47	NA	NA	NA	NA	NA	NA	34	66	6.8 (0.38)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
			(50 mg q.d.)																					
		33	GRZ18 + ELB18 (50 mg q.d.) + RBV18	56.2 (10.9)	48	100	0	0	NA	NA	100	NA	100	58	42	NA	NA	NA	NA	NA	NA	36	64	6.81 (0.44)
Poordad et al., 2014 TURQUOISE-II	Naive	86	PAR/RIT12 + OMB12 + DAS12 + RBV12	57.1 (7.0)	70.2	NA	NA	NA	NA	NA	NA	NA	100	67	33	NA	NA	NA	NA	NA	NA	100	NA	6.41 (0.62)
	Exp	122				100	NA	NA	NA	23.8	61.5	14.8												
	Naive	74	PAR/RIT24 + OMB24 + DAS24 + RBV24	56.5 (7.9)	70.3	NA	NA	NA	NA	NA	NA	NA	100	70.3	29.7	NA	NA	NA	NA	NA	NA	100	NA	6.53 (0.52)
	Exp	98				100	NA	NA	NA	23.5	63.3	13.3												
Sulkowski et al., 2015-1 C-WORTHY	Naive	85	GRZ12 + ELB12 + RBV12	51.0 (20 to 70)	47	0	0	0	NA	NA	NA	NA	100	61	37	NA	NA	NA	NA	NA	2	NA	100	6.21 (0.80)
		44	GRZ12 + ELB12 (50 mg q.d.)	52.0 (24 to 73)	52	0	0	0	NA	NA	NA	NA	100	68	32	NA	NA	NA	NA	NA	NA	NA	100	6.39 (0.56)
		30	GRZ8 + ELB8 (50 mg q.d.) + RBV8	52.0 (25 to 63)	60	0	0	0	NA	NA	NA	NA	100	100	NA	NA	NA	NA	NA	NA	NA	NA	100	6.38 (0.73)

INCLUDED STUDIES	POPULATION	ITT, N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)								PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASELINE VIRAL LOAD, MEAN LOG_{10} (SD)
						PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Sulkowski et al., 2015-2 C-WORTHY	Naive	30	GRZ12 + ELB12 (50 mg q.d.)	44.5 (22 to 62)	80	0	0	0	NA	NA	NA	NA	100	73	27	NA	NA	NA	NA	NA	NA	NA	100	6.36 (0.99)
		29	GRZ12 + ELB12 (50 mg q.d.) + RBV12	48.0 (27 to 63)	79	0	0	0	NA	NA	NA	NA	100	83	17	NA	NA	NA	NA	NA	NA	NA	100	6.34 (0.85)
Sulkowski et al., 2015 TURQUOISE-I-1a	Naive	20	PAR/ RIT12 + OMB12 + DAS12 + RBV12	50.9 (6.0)	0.94	0	0	0	NA	0	0	0	100	87	13	NA	NA	NA	NA	NA	NA	19	81	6.54 (0.57)
	Exp	11	PAR/ RIT12 + OMB12 + DAS12 + RBV12			100	0	0	NR	9	45	45												

ASU = asunaprevir; BEC = beclabuvir; DAA = direct-acting antiviral; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; exp = experienced; GRZ = grazoprevir; ITT = intention-to-treat; IU = international unit; LDV = ledipasvir; NA = not applicable; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SD = standard deviation; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Previous treatment with ≥ 12 weeks PR required to enter the study.
[b] Patients may or may not have been previously treated with PR.
[c] They further divided into G2a = 58, and G2b = 42.
[d] They further divided into G2a = 63, and G2b =37.

TABLE 88: LIVER TRANSPLANT RECIPIENTS

INCLUDED STUDIES[a]	ITT N	TREATMENT ARM	AGE (YEARS) MEAN (SD)/ MEDIAN (RANGE)	% MALE	PREVIOUS TREATMENT EXPERIENCE				PREVIOUS RESPONSE			GENOTYPE AND SUBTYPE (%)									PRESENCE OR ABSENCE OF CIRRHOSIS (%)		BASE-LINE VIRAL LOAD, MEAN LOG_{10} (SD)
					PR (%)	DAA + PR (%)	DAA ONLY (%)	MIXED	RELAPSE (%)	NULL (%)	PARTIAL (%)	1	1a	1b	2	3	4	5	6	COMBINED/ OTHER	CIRRHOTIC (%)	NON-CIRRHOTIC (%)	
Charlton et al., 2015	40	SOF24 + RBV24	Median 59 (range 49 to 75)	78	55	22.5	0	[b]	26	35	20	83	55	28	0	15	3	0	0	40	60	6.74 (4.49 to 7.59)	83
Kwo et al., 2014 CORAL-I	34	PAR/ RIT24 + OMB24 + DAS24 + RBV24	59.6 (6.6)/ NR (NR)	79	NR	NR	NR		NR	71	NR		85	15						0	100	6.6 (0.5)	

DAS = dasabuvir; ITT = intention-to-treat; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RIT = ritonavir; RBV = ribavirin; SD = standard deviation; SOF = sofosbuvir.

[a] Both are combined populations of treatment-naive and -experienced patients.

[b] Peginterferon or interferon only: 7.5%; other plus peginterferon and ribavirin: 2.5%; naive: 12.5%.

APPENDIX 8: DETAILED DOSAGE REGIMENS

TABLE 89: DOSAGE REGIMENS: TREATMENT-NAIVE PATIENTS (SUSTAINED VIROLOGIC RESPONSE) (N = 21)

STUDY/TREATMENT	GENOTYPE 1 OR GENOTYPES 2 TO 6												GENOTYPES 2 TO 6				
	PR48	SOF24 + RBV24	SOF12 + LDV12	SOF24 + LDV24	SOF8 + LDV8	SOF8 + LDV8 + RBV8	SOF12 + LDV12 + RBV12	SOF24 + LDV24 + RBV24	PAR/RIT12 + OMB12 + DAS12	PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + PR12	SIM12 PR24-48 RGT	SOF12 + RBV12	GRZ12 + ELB12	DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	PR24
Included in the network meta-analysis																	
Afdhal et al., 2014 ION-1			x	x			x	x									
Feld et al., 2014 SAPPHIRE-I										x							
Ferenci et al., 2014 PEARL-III									x								
Ferenci et al., 2014 PEARL-IV										x							
Jacobson et al., 2014 QUEST-1	x											x					
Kohli et al., 2015			x														
Kowdley et al., 2013 ATOMIC											x						
Kowdley et al., 2014 ION-3			x		x	x											
Lawitz et al., 2013 FISSION													x				x
Lawitz et al., 2013 NEUTRINO											x						
Lawitz et al., 2013-1	x																
Manns et al., 2014 QUEST-2	x											x					
Osinusi et al., 2013 SPARE-1	x																
Osinusi et al., 2013 SPARE-2		x															
Osinusi et al., 2015			x														
Sulkowski et al., 2013 P05411	x																
Sulkowski et al., 2013	x																

STUDY/TREATMENT	GENOTYPE 1 OR GENOTYPES 2 TO 6												GENOTYPES 2 TO 6				
	PR48	SOF24 + RBV24	SOF12 + LDV12	SOF24 + LDV24	SOF8 + LDV8	SOF8 + LDV8 + RBV8	SOF12 + LDV12 + RBV12	SOF24 + LDV24 + RBV24	PAR/RIT12 + OMB12 + DAS12	PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + PR12	SIM12 PR24-48 RGT	SOF12 + RBV12	GRZ12 + ELB12	DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	PR24
Not included in the network meta-analysis																	
Hassanein et al., 2015															x	x	
Lawitz et al., 2013-2											x						
Rodriguez-Torres et al., 2015											x						
Zeuzem et al., 2015 C-EDGE														x			

ASU = asunaprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 90: DOSAGE REGIMENS: TREATMENT-EXPERIENCED PATIENTS (SUSTAINED VIROLOGIC RESPONSE)

STUDY/TREATMENT	GENOTYPE 1 OR GENOTYPES 2 TO 6									
	SOF12 + LDV12	SOF24 + LDV24	SOF12 + LDV12 + RBV12	SOF24 + LDV24 + RBV24	AR/RIT12 + OMB12 + DAS12	PAR/RIT12 + OMB12 + DAS12 + RBV12	DCV24 + ASU24	DCV24 + ASU24 + PR24	SOF12 + PR12	SIM12 + PR48
Included in the network meta-analysis										
Afdhal et al., 2014 ION-2	x	x	x	x						
Andreone et al., 2014 PEARL-II					x					
Bourlière et al., 2015 SIRIUS		x	x							
Jensen et al., 2015 HALLMARK-QUAD								x		
Lawitz et al., 2014									x	
Lok et al., 2014							x	x		
Osinusi et al., 2014 SYNERGY	x									
Pol S et al., 2015									x	
Reddy et al., 2015 ATTAIN										x
Wyles et al., 2015			x							
Zeuzem et al., 2014 SAPPHIRE-II						x				
Not included in the network meta-analysis										
Forns et al., 2015 C-SALVAGE										

ASU = asunaprevir; BEC = beclabuvir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir.

NOTE: PLEASE REFER TO TREATMENT REGIMEN NOMENCLATURE TABLE FOR DESCRIPTION OF DOSAGES.

TABLE 91: DOSAGE REGIMENS: COMBINED TREATMENT POPULATION (SUSTAINED VIROLOGIC RESPONSE)

STUDY/TREATMENT	GENOTYPE 1 OR GENOTYPES 2 TO 6													GENO-TYPES 2 TO 6
	SOF24 + RBV24	SIM12 + SOF12	SOF12 + LDV12	SOF8 + LDV8	SOF8 + LDV8 + RBV8	SOF12 + LDV12 + RBV12	PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT24 + OMB24 + DAS24 + RBV24	DCV24 + ASU24	DCV12 + SOF12	SOF12 + PR12	SIM12 + PR24-48 RGT	SIM12 + PR48	SOF12 + RBV12
Included in the NMA (SVR)														
Dieterich et al., 2014												x	x	
Gane et al., 2013 ELECTRON											x			x
Gane et al., 2014 ELECTRON						x								
Jacobson et al., 2013 Fusion														x
Kumada et al., 2014									x					
Lalezari et al. et al., 2015							x							
Lawitz et al., 2014 COSMOS		x												
Lawitz et al., 2014 LONESTAR			x	x	x	x								
Manns et al., 2014 HALLMARK-DUAL									x					
Mizokami et al., 2015			x			x								
Molina et al., 2015 PHOTON-2	x													x
Muir et al., 2015 UNITY-2														
Nelson D. et al., accepted in 2015 ALLY-3 (AI444-218)										x				
Omata M et al., 2014														x
Pearlman et al., 2015		x									x			
Poordad et al. et al., 2015 UNITY-1														
Ruane et al., 2014	x													x
Sulkowski et al., 2014	x													x
Sulkowski et al., 2014										x				
Zeuzem et al., 2014	x													x
Not included in the NMA (SVR)														
Jacobson et al., 2013 POSITRON														x
Poordad et al., 2014 TURQUOISE-II							x	x						
Lawitz et al., 2015 C-WORTHY Sulkowski et al., 2015 C-WORTHY														
Sulkowski et al., 2015 TURQUOISE-I-1a							x							

ASU = asunaprevir; BEC = beclabuvir; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; NMA = network meta-analysis; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response.

NOTE: PLEASE REFER TO TREATMENT REGIMEN NOMENCLATURE TABLE FOR DESCRIPTION OF DOSAGES.

TABLE 92: DOSAGE REGIMENS: PATIENTS POST-LIVER TRANSPLANT (SUSTAINED VIROLOGIC RESPONSE)

STUDY/TREATMENT	SOF24 + RBV24	PAR/RIT24 + OMB24 + DAS24 + RBV24
Not included in the network meta-analysis for all sustained virologic response		
Charlton et al., 2015	X	
Kwo et al., 2014 CORAL-I		X

DAS = dasabuvir; OMB = ombitasvir; PAR = paritaprevir; RBV = ribavirin; RIT = ritonavir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 9: DETAILED CRITICAL APPRAISAL OF INCLUDED STUDIES

TABLE 93: QUALITY OF INCLUDED STUDIES

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	COCHRANE RISK OF BIAS: RANDOMIZED STUDIES						
	RANDOM-IZATION	ALLOCATION CONCEAL-MENT	BLINDING: OBJECTIVE OUTCOMES	BLINDING: SUBJECTIVE OUTCOMES	INCOMPLETE OUTCOME MEASURES	SELECTIVE OUTCOME REPORTING	OTHER SOURCES OF BIAS
Treatment-naive (N = 9)							
Afdhal et al., 2014 ION-1	Low	Low	Low	High	Low	Low	Unclear
Jacobson et al., 2014 QUEST-1	Low	Low	Low	High	Low	Low	Unclear
Kowdley et al., 2014 ION-3	Low	Low	Low	High	Low	Low	Low
Lawitz et al., 2013 FISSION	Low	Low	Low	High	Low	Low	Low
Lawitz et al., 2013-1	Low	Low	Low	Low	High	Low	Unclear
Manns et al., 2014 QUEST-2	Low	Low	Low	Unclear	Low	Low	Low
Osinusi et al., 2013 SPARE-2	Unclear	Unclear	Low	High	Low	Low	Unclear
Sulkowski et al., 2013	Low	Low	Low	Low	Low	Unclear	Low
Sulkowski et al., 2013 P05411	Low	Low	Low	Low	Unclear	Unclear	Low
Treatment-experienced (N = 4)							
Afdhal et al., 2014 ION-2	Low	Low	Low	High	Low	Low	Unclear
Bourlière et al., 2015 SIRIUS	Low	Low	Low	Low	Low	Low	Low
Reddy et al., 2015 ATTAIN	Low	Low	Low	Low	Low	Low	Low
Zeuzem et al., 2014 SAPPHIRE-II	Low	Low	Low	Low	Low	Low	Unclear

AUTHOR, YEAR, STUDY NAME (IF AVAILABLE)	COCHRANE RISK OF BIAS: RANDOMIZED STUDIES						
	RANDOM-IZATION	ALLOCATION CONCEAL-MENT	BLINDING: OBJECTIVE OUTCOMES	BLINDING: SUBJECTIVE OUTCOMES	INCOMPLETE OUTCOME MEASURES	SELECTIVE OUTCOME REPORTING	OTHER SOURCES OF BIAS
Combined treatment experience (N = 8)							
Jacobson et al., 2013 POSITRON	Low	Low	Low	High	Low	Low	Low
Manns et al., 2014 HALLMARK-DUAL	Low	Low	Low	Low	Low	Low	Low
Mizokami et al., 2015	Low	Low	Low	Unclear	Low	Low	Low
Muir et al., 2015 UNITY-2	Low	Low	Low	Low	Unclear	Low	Low
Pearlman et al., 2015	Unclear	Unclear	Low	High	Unclear	Low	High
Poordad et al., 2014 TURQUOISE-II	Low	Low	Low	High	Low	Low	Low
Ruane et al., 2014	Low	Low	Low	High	High	Low	Unclear
Sulkowski et al., 2015 TURQUOISE-I-1a	Low	Low	Low	High	Low	Low	Low

TABLE 94: TREATMENT-NAIVE PATIENTS — ASSESSMENT OF RISK OF BIAS

STUDY NAME, AUTHOR, YEAR (IF AVAILABLE)	COCHRANE RISK OF BIAS: RANDOMIZED STUDIES					
	RANDOMIZATION	ALLOCATION CONCEALMENT	BLINDING	INCOMPLETE OUTCOME MEASURES	SELECTIVE OUTCOME REPORTING	OTHER SOURCES OF BIAS
Treatment-Naive From TR0007 (N = 6)						
SPRINT2 Poordad et al., 2011	Low	Low	Low	Low	Low	Low
ADVANCE Jacobson et al., 2011	Unclear	Low	Low	Low	Low	Low
OPTIMIZE Buti et al., 2014	Low	Low	Unclear	Low	High	Low
Marcellin et al., 2011	Low	Unclear	Unclear	Low	Unclear	Low
PILLAR Fried et al., 2013	Unclear	Low	Low	Low	Unclear	Low
ILLUMINATE Sherman et al., 2011	Low	Low	Unclear	Low	High	Low

TABLE 95: TREATMENT-EXPERIENCED PATIENTS — ASSESSMENT OF RISK OF BIAS FROM TR0007

STUDY NAME, AUTHOR, YEAR (IF AVAILABLE)	COCHRANE RISK OF BIAS: RANDOMIZED STUDIES					
	RANDOMIZATION	ALLOCATION CONCEALMENT	BLINDING	INCOMPLETE OUTCOME MEASURES	SELECTIVE OUTCOME REPORTING	OTHER SOURCES OF BIAS
Treatment-Experienced From TR0007 (N = 4)						
RESPOND2 Bacon et al., 2011	Low	Low	Unclear	Low	Low	Low
PROMISE Forns et al., 2014	Unclear	Low	Unclear	Low	Unclear	Low
ASPIRE Zeuzem et al., 2014	Low	Low	Unclear	Low	Unclear	Low
REALIZE Zeuzem et al., 2011	Low	Low	Low	Low	High	Low

APPENDIX 10: DETAILED NETWORK META-ANALYSIS RESULTS AND EVALUATION OF CONSISTENCY

Genotype 1
Treatment-Naive Patients
All Patients

TABLE 96: SVR GENOTYPE 1-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.48 (1.01 to 1.82)	25.15 (0.68 to 41.08)
SIM12 + SOF12		1.74 (0.98 to 2.01)	38.89 (–1.19 to 49.01)
SOF12 + LDV12		1.86 (1.69 to 2.05)	44.39 (38.84 to 49.69)
SOF8 + LDV8 + RBV8		1.80 (1.55 to 2.01)	41.51 (29.62 to 48.27)
SOF12 + LDV12 + RBV12		1.81 (1.64 to 2.01)	42.35 (35.44 to 48.18)
SOF24 + LDV24 + RBV24		1.88 (1.72 to 2.07)	45.62 (40.11 to 50.88)
T12 PR24-48 RGT q8		1.54 (1.37 to 1.71)	28.26 (19.49 to 35.30)
T12 PR24-48 RGT q12		1.57 (1.34 to 1.76)	29.50 (17.73 to 37.65)
T12 PR48 q8		1.56 (0.97 to 1.91)	28.95 (–1.43 to 43.87)
SOF12 + PR12		1.59 (1.19 to 1.86)	30.52 (10.12 to 41.99)
SOF12 + PR24-48 RGT		1.67 (1.30 to 1.95)	34.90 (16.12 to 45.94)
SIM12 PR24-48 RGT		1.51 (1.34 to 1.69)	26.58 (18.69 to 33.53)
B24 PR28-48 RGT		1.45 (1.26 to 1.63)	23.43 (13.92 to 31.26)
B44 PR48		1.56 (1.20 to 1.85)	29.22 (10.89 to 41.74)
SOF24 + RBV (low dose) 24		0.89 (0.42 to 1.43)	–5.76 (–30.23 to 21.87)
SOF12 + SIM12 + RBV12		1.78 (0.75 to 2.04)	41.31 (–12.94 to 50.39)
SOF12 + RBV12		1.60 (0.85 to 1.92)	31.39 (–7.70 to 45.38)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.85 (1.68 to 2.05)	44.14 (37.54 to 49.90)
DCV24 + ASU24		1.65 (1.44 to 1.86)	34.02 (23.95 to 41.56)
DCV12 + SOF12		1.85 (1.38 to 2.08)	44.41 (20.34 to 51.27)
PAR/RIT12 + OMB12 + DAS12		1.86 (1.55 to 2.07)	44.88 (28.65 to 50.86)
SIM12 + SOF12	SOF24 + RBV24	1.15 (0.66 to 1.73)	12.03 (–27.46 to 40.11)
SOF12 + LDV12		1.25 (1.05 to 1.83)	19.06 (4.94 to 43.51)
SOF8 + LDV8 + RBV8		1.20 (1.00 to 1.76)	15.57 (0.26 to 39.95)
SOF12 + LDV12 + RBV12		1.22 (1.02 to 1.77)	16.88 (2.19 to 40.65)
SOF24 + LDV24 + RBV24		1.27 (1.06 to 1.86)	20.49 (5.53 to 45.04)
T12 PR24-48 RGT q8		1.04 (0.83 to 1.53)	3.20 (–14.84 to 28.36)
T12 PR24-48 RGT q12		1.06 (0.83 to 1.57)	4.29 (–15.05 to 30.26)
T12 PR48 q8		1.04 (0.64 to 1.59)	2.85 (–30.50 to 32.20)
SOF12 + PR12		1.06 (0.80 to 1.55)	4.56 (–16.29 to 29.90)
SOF12 + PR24-48 RGT		1.13 (0.82 to 1.68)	9.69 (–16.25 to 36.37)
SIM12 PR24-48 RGT		1.02 (0.83 to 1.51)	1.55 (–14.96 to 26.68)
B24 PR28-48 RGT		0.98 (0.78 to 1.46)	–1.76 (–19.74 to 24.11)
B44 PR48		1.05 (0.77 to 1.60)	3.96 (–20.40 to 32.25)
SOF24 + RBV (low dose) 24		0.61 (0.37 to 0.82)	–29.45 (–42.88 to –15.59)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.18 (0.52 to 1.78)	14.00 (–39.56 to 42.34)
SOF12 + RBV12		1.06 (0.67 to 1.41)	4.94 (–22.92 to 24.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.24 (1.05 to 1.83)	18.84 (4.20 to 43.12)
DCV24 + ASU24		1.11 (0.90 to 1.65)	8.81 (–8.78 to 34.12)
DCV12 + SOF12		1.24 (0.90 to 1.84)	18.34 (–8.44 to 44.37)
PAR/RIT12 + OMB12 + DAS12		1.25 (1.00 to 1.83)	19.15 (–0.02 to 44.01)
SOF12 + LDV12	SIM12 + SOF12	1.06 (0.96 to 1.89)	5.38 (–3.48 to 44.79)
SOF8 + LDV8 + RBV8		1.03 (0.88 to 1.81)	2.66 (–11.11 to 41.23)
SOF12 + LDV12 + RBV12		1.04 (0.93 to 1.87)	3.23 (–6.76 to 43.59)
SOF24 + LDV24 + RBV24		1.07 (0.97 to 1.94)	6.48 (–2.86 to 47.20)
T12 PR24-48 RGT q8		0.89 (0.75 to 1.60)	–10.31 (–23.75 to 30.36)
T12 PR24-48 RGT q12		0.90 (0.74 to 1.62)	–8.86 (–25.11 to 31.43)
T12 PR48 q8		0.90 (0.57 to 1.62)	–9.62 (–40.54 to 31.10)
SOF12 + PR12		0.92 (0.70 to 1.52)	–7.03 (–27.82 to 25.92)
SOF12 + PR24-48 RGT		0.96 (0.73 to 1.71)	–3.26 (–25.72 to 36.65)
SIM12 PR24-48 RGT		0.87 (0.75 to 1.56)	–12.16 (–24.17 to 28.37)
B24 PR28-48 RGT		0.84 (0.70 to 1.49)	–15.06 (–29.34 to 24.82)
B44 PR48		0.90 (0.69 to 1.64)	–8.92 (–29.55 to 32.77)
SOF24 + RBV(low dose) 24		0.53 (0.24 to 0.99)	–41.42 (–72.13 to –0.76)
SOF12 + SIM12 + RBV12		1.02 (0.50 to 1.47)	1.49 (–40.41 to 28.42)
SOF12 + RBV12		0.93 (0.48 to 1.60)	–6.30 (–48.82 to 31.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.95 to 1.88)	5.08 (–4.79 to 44.42)
DCV24 + ASU24		0.95 (0.81 to 1.71)	–4.82 (–18.40 to 35.98)
DCV12 + SOF12		1.05 (0.80 to 1.88)	4.85 (–18.67 to 44.16)
PAR/RIT12 + OMB12 + DAS12		1.06 (0.88 to 1.93)	5.37 (–11.49 to 46.64)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.97 (0.87 to 1.01)	–2.75 (–12.03 to 0.57)
SOF12 + LDV12 + RBV12		0.98 (0.92 to 1.02)	–1.89 (–7.58 to 1.91)
SOF24 + LDV24 + RBV24		1.01 (0.97 to 1.06)	1.14 (–3.21 to 5.41)
T12 PR24-48 RGT q8		0.83 (0.73 to 0.91)	–16.05 (–25.70 to –8.42)
T12 PR24-48 RGT q12		0.85 (0.72 to 0.93)	–14.82 (–27.51 to –6.39)
T12 PR48 q8		0.84 (0.55 to 0.98)	–15.42 (–43.48 to –2.37)
SOF12 + PR12		0.86 (0.66 to 0.95)	–13.80 (–31.88 to –4.96)
SOF12 + PR24-48 RGT		0.90 (0.71 to 1.01)	–9.39 (–28.40 to 0.74)
SIM12 PR24-48 RGT		0.82 (0.74 to 0.88)	–17.78 (–25.67 to –11.10)
B24 PR28-48 RGT		0.78 (0.68 to 0.87)	–20.96 (–31.19 to –12.43)
B44 PR48		0.84 (0.66 to 0.96)	–15.27 (–33.09 to –3.54)
SOF24 + RBV (low dose) 24		0.48 (0.22 to 0.76)	–50.03 (–74.33 to –23.86)
SOF12 + SIM12 + RBV12		0.97 (0.40 to 1.05)	–2.79 (–56.77 to 4.81)
SOF12 + RBV12		0.87 (0.46 to 1.00)	–12.93 (–51.99 to –0.20)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.96 to 1.03)	–0.09 (–4.31 to 2.32)
DCV24 + ASU24		0.89 (0.79 to 0.96)	–10.34 (–20.24 to –3.38)
DCV12 + SOF12		1.00 (0.77 to 1.06)	0.21 (–22.09 to 5.25)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.83 to 1.06)	0.75 (–16.17 to 5.50)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.94 to 1.14)	0.87 (–5.93 to 11.71)
SOF24 + LDV24 + RBV24		1.04 (0.98 to 1.18)	3.86 (–1.52 to 15.17)
T12 PR24-48 RGT q8		0.86 (0.75 to 1.00)	–13.10 (–23.65 to –0.40)
T12 PR24-48 RGT q12		0.87 (0.73 to 1.02)	–11.80 (–25.23 to 1.40)
T12 PR48 q8		0.87 (0.57 to 1.05)	–12.26 (–40.38 to 4.28)
SOF12 + PR12		0.89 (0.69 to 1.00)	–10.40 (–28.11 to –0.41)
SOF12 + PR24-48 RGT		0.93 (0.73 to 1.10)	–6.20 (–26.07 to 8.22)
SIM12 PR24-48 RGT		0.84 (0.75 to 0.97)	–14.74 (–23.99 to –2.37)
B24 PR28-48 RGT		0.81 (0.69 to 0.95)	–17.93 (–29.08 to –4.59)
B44 PR48		0.87 (0.68 to 1.04)	–12.09 (–30.46 to 3.57)
SOF24 + RBV (low dose) 24		0.50 (0.23 to 0.78)	–46.26 (–71.15 to –20.47)
SOF12 + SIM12 + RBV12		1.00 (0.42 to 1.16)	–0.09 (–53.25 to 13.49)
SOF12 + RBV12		0.90 (0.48 to 1.06)	–9.63 (–47.61 to 5.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.97 to 1.15)	2.62 (–2.80 to 12.42)
DCV24 + ASU24		0.92 (0.81 to 1.06)	–7.30 (–18.22 to 5.24)
DCV12 + SOF12		1.03 (0.80 to 1.18)	2.72 (–19.15 to 14.72)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.86 to 1.18)	3.20 (–13.20 to 15.05)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.03 (0.98 to 1.11)	3.14 (–1.68 to 9.48)
T12 PR24-48 RGT q8		0.85 (0.75 to 0.94)	–14.06 (–23.81 to –5.11)
T12 PR24-48 RGT q12		0.86 (0.73 to 0.97)	–12.79 (–25.33 to –3.14)
T12 PR48 q8		0.86 (0.56 to 1.01)	–13.38 (–42.12 to 0.80)
SOF12 + PR12		0.88 (0.66 to 0.99)	–11.72 (–31.71 to –0.67)
SOF12 + PR24-48 RGT		0.92 (0.72 to 1.04)	–7.27 (–26.57 to 3.56)
SIM12 PR24-48 RGT		0.83 (0.75 to 0.92)	–15.77 (–23.88 to –7.38)
B24 PR28-48 RGT		0.80 (0.69 to 0.90)	–18.91 (–29.43 to –9.11)
B44 PR48		0.86 (0.67 to 1.00)	–13.05 (–31.38 to –0.26)
SOF24 + RBV (low dose) 24		0.49 (0.23 to 0.78)	–47.82 (–72.07 to –21.17)
SOF12 + SIM12 + RBV12		0.99 (0.41 to 1.09)	–0.79 (–54.40 to 8.49)
SOF12 + RBV12		0.88 (0.47 to 1.03)	–10.91 (–49.52 to 2.79)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.96 to 1.09)	1.77 (–4.03 to 7.88)
DCV24 + ASU24		0.91 (0.81 to 1.00)	–8.35 (–18.49 to 0.24)
DCV12 + SOF12		1.02 (0.78 to 1.11)	1.90 (–20.52 to 9.39)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.85 to 1.11)	2.45 (–13.99 to 9.62)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.82 (0.73 to 0.90)	–17.25 (–26.67 to –9.68)
T12 PR24-48 RGT q12		0.84 (0.71 to 0.92)	–16.07 (–28.34 to –7.55)
T12 PR48 q8		0.83 (0.54 to 0.97)	–16.68 (–44.98 to –2.85)
SOF12 + PR12		0.85 (0.64 to 0.96)	–14.89 (–35.37 to –4.29)
SOF12 PR24-48 RGT		0.89 (0.70 to 1.00)	–10.63 (–29.48 to –0.26)
SIM12 PR24-48 RGT		0.80 (0.73 to 0.87)	–19.06 (–26.72 to –11.91)
B24 PR28-48 RGT		0.77 (0.67 to 0.86)	–22.15 (–32.43 to –13.43)
B44 PR48		0.83 (0.65 to 0.95)	–16.49 (–34.45 to –4.60)
SOF24 + RBV (low dose) 24		0.47 (0.22 to 0.76)	–51.37 (–75.82 to –23.80)

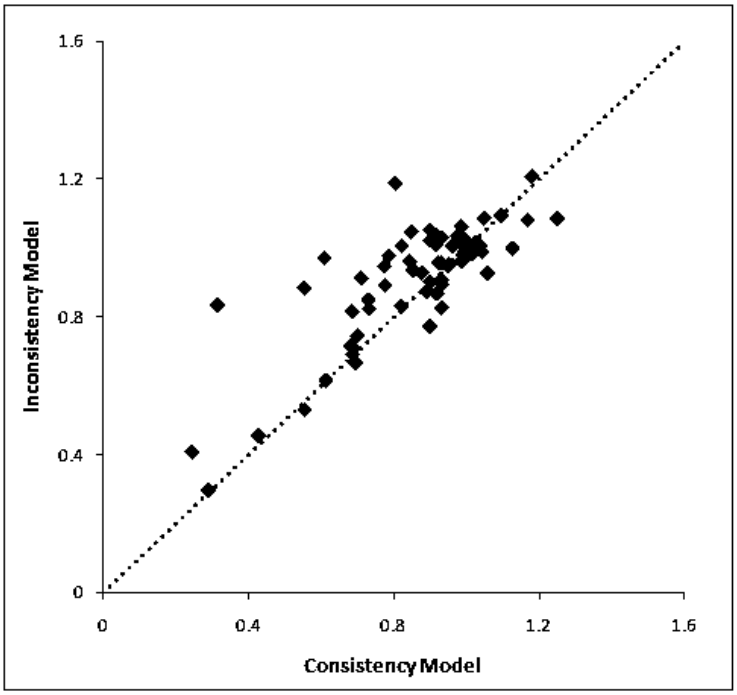
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		0.96 (0.40 to 1.04)	–3.94 (–59.00 to 4.20)
SOF12 + RBV12		0.85 (0.45 to 1.00)	–14.19 (–53.27 to –0.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.93 to 1.04)	–1.34 (–7.01 to 3.38)
DCV24 + ASU24		0.88 (0.78 to 0.95)	–11.54 (–21.26 to –4.32)
DCV12 + SOF12		0.99 (0.76 to 1.05)	–0.96 (–23.94 to 4.34)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.83 to 1.03)	–0.38 (–16.09 to 3.00)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.02 (0.92 to 1.09)	1.19 (–6.17 to 6.94)
T12 PR48 q8		1.01 (0.65 to 1.24)	0.67 (–28.35 to 17.28)
SOF12 + PR12		1.03 (0.77 to 1.22)	2.30 (–18.92 to 16.00)
SOF12 PR24-48 RGT		1.08 (0.85 to 1.27)	6.71 (–12.65 to 19.83)
SIM12 PR24-48 RGT		0.98 (0.86 to 1.12)	–1.80 (–11.45 to 8.90)
B24 PR28-48 RGT		0.94 (0.81 to 1.09)	–4.81 (–16.13 to 6.55)
B44 PR48		1.01 (0.78 to 1.22)	0.78 (–18.01 to 15.96)
SOF24 + RBV (low dose) 24		0.58 (0.27 to 0.93)	–33.89 (–59.36 to –5.12)
SOF12 + SIM12 + RBV12		1.15 (0.49 to 1.35)	12.48 (–40.80 to 25.31)
SOF12 + RBV12		1.04 (0.55 to 1.26)	3.15 (–36.03 to 19.17)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.20 (1.09 to 1.36)	15.80 (7.62 to 25.53)
DCV24 + ASU24		1.07 (0.93 to 1.23)	5.69 (–5.68 to 16.73)
DCV12 + SOF12		1.20 (0.90 to 1.37)	15.78 (–8.42 to 26.57)
PAR/RIT12 + OMB12 + DAS12		1.20 (0.99 to 1.37)	16.41 (–0.48 to 26.33)
T12 PR48 q8	T12 PR24-48 RGT q12	0.99 (0.65 to 1.26)	–0.74 (–29.59 to 18.18)
SOF12 + PR12		1.01 (0.76 to 1.24)	1.15 (–19.96 to 17.14)
SOF12 PR24-48 RGT		1.07 (0.83 to 1.29)	5.40 (–14.47 to 21.01)
SIM12 PR24-48 RGT		0.96 (0.84 to 1.15)	–2.98 (–13.63 to 10.30)
B24 PR28-48 RGT		0.93 (0.79 to 1.11)	–6.01 (–18.23 to 8.01)
B44 PR48		1.00 (0.77 to 1.22)	–0.22 (–19.78 to 16.06)
SOF24 + RBV (low dose) 24		0.57 (0.26 to 0.93)	–34.88 (–61.49 to –5.47)
SOF12 + SIM12 + RBV12		1.13 (0.48 to 1.38)	11.10 (–41.99 to 26.66)
SOF12 + RBV12		1.03 (0.55 to 1.28)	2.00 (–37.17 to 19.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.18 (1.06 to 1.39)	14.55 (5.47 to 27.27)
DCV24 + ASU24		1.06 (0.91 to 1.26)	4.52 (–7.50 to 18.01)
DCV12 + SOF12		1.18 (0.88 to 1.40)	14.48 (–9.65 to 28.12)
PAR/RIT12 + OMB12 + DAS12		1.18 (0.97 to 1.40)	15.13 (–2.53 to 27.73)
SOF12 + PR12	T12 PR48 q8	1.02 (0.75 to 1.59)	1.54 (–21.14 to 31.94)
SOF12 + PR24-48 RGT		1.08 (0.81 to 1.63)	6.05 (–16.86 to 34.56)
SIM12 PR24-48 RGT		0.97 (0.80 to 1.49)	–2.32 (–18.48 to 26.49)
B24 PR28-48 RGT		0.93 (0.75 to 1.45)	–5.33 (–22.98 to 24.20)
B44 PR48		1.01 (0.74 to 1.54)	0.60 (–23.23 to 29.69)
SOF24 + RBV (low dose) 24		0.58 (0.26 to 1.15)	–33.08 (–62.80 to 8.96)
SOF12 + SIM12 + RBV12		1.13 (0.48 to 1.80)	10.47 (–42.69 to 43.47)
SOF12 + RBV12		1.03 (0.55 to 1.64)	2.39 (–37.60 to 35.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (1.02 to 1.81)	15.18 (1.55 to 43.13)
DCV24 + ASU24		1.07 (0.88 to 1.63)	5.24 (–11.22 to 33.89)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + SOF12		1.18 (0.99 to 1.67)	14.19 (–0.75 to 37.09)
PAR/RIT12 + OMB12 + DAS12		1.19 (0.95 to 1.83)	15.62 (–4.40 to 44.35)
SOF12 + PR24-48 RGT	SOF12 + PR12	1.05 (0.79 to 1.44)	4.47 (–18.24 to 27.42)
SIM12 PR24-48 RGT		0.95 (0.81 to 1.28)	–4.06 (–17.68 to 17.52)
B24 PR28-48 RGT		0.92 (0.76 to 1.23)	–7.02 (–21.50 to 14.71)
B44 PR48		0.98 (0.75 to 1.35)	–1.51 (–21.87 to 22.00)
SOF24 + RBV (low dose) 24		0.57 (0.27 to 0.88)	–34.96 (–61.63 to –9.10)
SOF12 + SIM12 + RBV12		1.10 (0.50 to 1.50)	8.72 (–40.28 to 32.27)
SOF12 + RBV12		1.01 (0.54 to 1.34)	0.62 (–38.41 to 22.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.16 (1.05 to 1.51)	13.50 (4.18 to 31.93)
DCV24 + ASU24		1.04 (0.87 to 1.39)	3.42 (–11.26 to 24.46)
DCV12 + SOF12		1.15 (0.90 to 1.55)	12.79 (–9.10 to 34.68)
PAR/RIT12 + OMB12 + DAS12		1.16 (0.96 to 1.55)	13.59 (–3.66 to 34.63)
SIM12 + PR24-48 RGT	SOF12 PR24-48 RGT	0.90 (0.78 to 1.17)	–8.31 (–21.11 to 11.41)
B24 PR28-48 RGT		0.87 (0.72 to 1.11)	–11.30 (–25.68 to 8.06)
B44 PR48		0.94 (0.71 to 1.23)	–5.39 (–26.45 to 16.13)
SOF24 + RBV (low dose) 24		0.53 (0.25 to 0.92)	–40.04 (–67.95 to –5.99)
SOF12 + SIM12 + RBV12		1.05 (0.46 to 1.39)	4.76 (–47.37 to 27.12)
SOF12 + RBV12		0.96 (0.52 to 1.29)	–3.77 (–42.77 to 20.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.11 (0.98 to 1.41)	9.18 (–1.78 to 28.17)
DCV24 + ASU24		0.99 (0.84 to 1.27)	–0.93 (–15.15 to 18.75)
DCV12 + SOF12		1.10 (0.84 to 1.41)	8.38 (–13.97 to 28.18)
PAR/RIT12 + OMB12 + DAS12		1.11 (0.90 to 1.43)	9.45 (–9.36 to 29.26)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.96 (0.82 to 1.10)	–3.08 (–14.68 to 7.52)
B44 PR48		1.03 (0.80 to 1.22)	2.65 (–16.30 to 16.27)
SOF24 + RBV (low dose) 24		0.59 (0.27 to 0.95)	–32.07 (–57.76 to –3.81)
SOF12 + SIM12 + RBV12		1.18 (0.49 to 1.35)	14.48 (–39.41 to 25.82)
SOF12 + RBV12		1.06 (0.57 to 1.28)	4.68 (–33.63 to 20.42)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.12 to 1.36)	17.56 (9.71 to 25.74)
DCV24 + ASU24		1.09 (1.01 to 1.18)	7.35 (0.54 to 13.42)
DCV12 + SOF12		1.22 (0.92 to 1.37)	17.63 (–6.50 to 26.33)
PAR/RIT12 + OMB12 + DAS12		1.23 (1.01 to 1.37)	18.21 (0.54 to 26.51)
B44 PR48	B24 PR28-48 RGT	1.08 (0.82 to 1.31)	5.79 (–13.97 to 21.31)
SOF24 + RBV (low dose) 24		0.61 (0.29 to 1.00)	–28.90 (–54.99 to –0.24)
SOF12 + SIM12 + RBV12		1.22 (0.52 to 1.47)	17.22 (–36.70 to 31.08)
SOF12 + RBV12		1.10 (0.59 to 1.36)	7.89 (–30.73 to 24.62)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.28 (1.14 to 1.48)	20.72 (11.42 to 31.18)
DCV24 + ASU24		1.14 (0.98 to 1.34)	10.55 (–1.68 to 22.40)
DCV12 + SOF12		1.27 (0.96 to 1.49)	20.62 (–3.06 to 32.12)
PAR/RIT12 + OMB12 + DAS12		1.28 (1.05 to 1.49)	21.16 (3.72 to 32.05)
SOF24 + RBV (low dose) 24	B44 PR48	0.57 (0.26 to 0.97)	–34.25 (–63.84 to –1.82)
SOF12 + SIM12 + RBV12		1.13 (0.48 to 1.49)	10.70 (–42.05 to 32.13)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12		1.02 (0.53 to 1.36)	1.93 (–38.86 to 24.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.18 (1.03 to 1.52)	14.94 (2.85 to 32.95)
DCV24 + ASU24		1.06 (0.89 to 1.37)	4.84 (–10.15 to 24.00)
DCV12 + SOF12		1.18 (0.88 to 1.52)	14.42 (–10.05 to 33.41)
PAR/RIT12 + OMB12 + DAS12		1.19 (0.96 to 1.52)	15.20 (–3.12 to 33.17)
SOF12 + SIM12 + RBV12	SOF24 + RBV (low dose) 24	1.91 (0.74 to 4.30)	43.29 (–14.99 to 73.93)
SOF12 + RBV12		1.74 (1.17 to 3.17)	34.13 (8.99 to 55.76)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.08 (1.32 to 4.44)	49.80 (23.38 to 74.19)
DCV24 + ASU24		1.86 (1.16 to 4.01)	39.50 (11.15 to 65.44)
DCV12 + SOF12		2.05 (1.23 to 4.45)	48.63 (15.48 to 75.19)
PAR/RIT12 + OMB12 + DAS12		2.07 (1.29 to 4.44)	49.42 (20.46 to 75.41)
SOF12 + RBV12	SOF12 + SIM12 + RBV12	0.91 (0.47 to 2.07)	–8.08 (–50.17 to 44.04)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.94 to 2.48)	2.57 (–6.14 to 56.65)
DCV24 + ASU24		0.92 (0.80 to 2.23)	–7.16 (–20.01 to 47.82)
DCV12 + SOF12		1.02 (0.78 to 2.44)	2.15 (–21.19 to 55.97)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.87 to 2.46)	2.97 (–12.71 to 56.85)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + RBV12	1.15 (0.99 to 2.16)	12.66 (–0.79 to 51.44)
DCV24 + ASU24		1.03 (0.85 to 1.94)	2.82 (–13.95 to 42.12)
DCV12 + SOF12		1.14 (0.86 to 2.14)	12.06 (–12.10 to 51.32)
PAR/RIT12 + OMB12 + DAS12		1.16 (0.94 to 2.17)	12.96 (–5.64 to 51.97)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.90 (0.79 to 0.98)	–10.10 (–20.21 to –1.96)
DCV12 + SOF12		1.00 (0.77 to 1.07)	0.39 (–21.90 to 6.76)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.83 to 1.07)	0.88 (–16.15 to 6.77)
DCV12 + SOF12	DCV24 + ASU24	1.12 (0.85 to 1.27)	9.95 (–12.91 to 20.85)
PAR/RIT12 + OMB12 + DAS12		1.12 (0.92 to 1.27)	10.67 (–6.70 to 21.11)
PAR/RIT12 + OMB12 + DAS12	DCV12 + SOF12	1.00 (0.84 to 1.31)	0.40 (–15.92 to 22.95)
Random effect model	Residual deviance	62.51 vs. 72 data points	
	Deviance information criteria	385.205	
Fixed effect model	Residual deviance	63.06 vs. 72 data points	
	Deviance information criteria	384.588	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 30: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 TREATMENT-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Genotype 1a

TABLE 97: SVR GENOTYPE 1A TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	2.05 (0.89 to 2.95)	40.92 (–4.51 to 62.65)
SIM12 + SOF12		2.06 (0.38 to 2.93)	41.99 (–23.24 to 63.02)
SOF12 + LDV12		2.48 (1.96 to 3.12)	57.22 (41.96 to 65.74)
SOF8 + LDV8 + RBV8		2.40 (1.45 to 3.04)	54.74 (17.23 to 64.50)
SOF12 + LDV12 + RBV12		2.53 (2.03 to 3.19)	59.19 (46.38 to 67.48)
SOF24 + LDV24 + RBV24		2.53 (2.02 to 3.18)	59.14 (45.76 to 67.19)
T12 PR24-48 RGT q8		1.75 (0.94 to 2.30)	29.28 (–2.20 to 46.54)
T12 PR24-48 RGT q12		1.74 (0.66 to 2.40)	28.85 (–12.93 to 50.19)
T12 PR48 q8		2.02 (1.00 to 2.85)	40.17 (–0.11 to 59.25)
SOF12 + PR12		1.70 (0.36 to 2.64)	27.41 (–24.76 to 56.05)
SIM12 PR24-48 RGT		1.83 (1.35 to 2.40)	31.95 (14.23 to 47.59)
SOF24 + RBV (low dose) 24		1.31 (0.24 to 2.62)	11.83 (–31.56 to 54.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.47 (1.87 to 3.13)	57.07 (36.45 to 66.05)
B24 PR28-48 RGT		1.61 (0.82 to 2.21)	23.42 (–6.87 to 44.26)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B44 PR48		1.89 (0.97 to 2.60)	34.68 (–1.29 to 54.47)
SIM12 + SOF12	SOF24 + RBV24	1.01 (0.19 to 2.20)	0.53 (–67.81 to 48.85)
SOF12 + LDV12		1.20 (0.95 to 2.57)	15.73 (–4.91 to 58.02)
SOF8 + LDV8 + RBV8		1.16 (0.72 to 2.44)	12.55 (–23.35 to 55.36)
SOF12 + LDV12 + RBV12		1.22 (0.99 to 2.62)	17.64 (–1.23 to 60.05)
SOF24 + LDV24 + RBV24		1.22 (0.99 to 2.61)	17.53 (–0.98 to 59.79)
T12 PR24-48 RGT q8		0.86 (0.45 to 1.88)	–11.43 (–47.49 to 34.65)
T12 PR24-48 RGT q12		0.85 (0.33 to 1.89)	–12.01 (–56.44 to 35.73)
T12 PR48 q8		0.99 (0.49 to 2.12)	–0.94 (–44.12 to 44.63)
SOF12 + PR12		0.84 (0.18 to 1.88)	–12.37 (–68.28 to 37.50)
SIM12 PR24-48 RGT		0.89 (0.62 to 1.99)	–8.77 (–35.42 to 37.67)
SOF24 + RBV (low dose) 24		0.65 (0.22 to 0.97)	–25.66 (–50.51 to –2.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (0.92 to 2.55)	15.36 (–7.72 to 57.82)
B24 PR28-48 RGT		0.79 (0.39 to 1.78)	–16.89 (–52.09 to 30.74)
B44 PR48		0.93 (0.46 to 2.05)	–5.99 (–46.68 to 41.90)
SOF12 + LDV12	SIM12 + SOF12	1.18 (0.97 to 6.26)	14.27 (–3.35 to 77.01)
SOF8 + LDV8 + RBV8		1.13 (0.80 to 5.64)	10.92 (–16.88 to 72.81)
SOF12 + LDV12 + RBV12		1.20 (0.98 to 6.50)	16.41 (–2.22 to 80.90)
SOF24 + LDV24 + RBV24		1.20 (0.98 to 6.47)	16.22 (–2.27 to 80.83)
T12 PR24-48 RGT q8		0.85 (0.48 to 4.40)	–12.66 (–45.82 to 54.16)
T12 PR24-48 RGT q12		0.84 (0.36 to 4.44)	–12.87 (–55.09 to 54.94)
T12 PR48 q8		0.97 (0.54 to 4.87)	–2.16 (–40.28 to 60.93)
SOF12 + PR12		0.87 (0.29 to 2.56)	–10.69 (–53.38 to 35.25)
SIM12 PR24-48 RGT		0.88 (0.62 to 4.89)	–9.59 (–35.28 to 58.28)
SOF24 + RBV (low dose) 24		0.67 (0.13 to 3.66)	–25.33 (–78.19 to 47.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (0.94 to 6.16)	13.84 (–6.05 to 77.28)
B24 PR28-48 RGT		0.78 (0.42 to 4.12)	–17.79 (–51.74 to 50.08)
B44 PR48		0.92 (0.48 to 4.76)	–6.32 (–46.88 to 59.99)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.65 to 1.04)	–2.05 (–30.00 to 3.15)
SOF12 + LDV12 + RBV12		1.02 (0.94 to 1.15)	1.78 (–5.77 to 12.48)
SOF24 + LDV24 + RBV24		1.02 (0.93 to 1.15)	1.64 (–6.25 to 12.51)
T12 PR24-48 RGT q8		0.71 (0.39 to 0.94)	–28.18 (–56.10 to –5.64)
T12 PR24-48 RGT q12		0.70 (0.27 to 0.97)	–28.58 (–66.61 to –2.64)
T12 PR48 q8		0.83 (0.45 to 0.99)	–16.65 (–50.82 to –1.20)
SOF12 + PR12		0.69 (0.16 to 0.95)	–29.61 (–75.97 to –4.43)

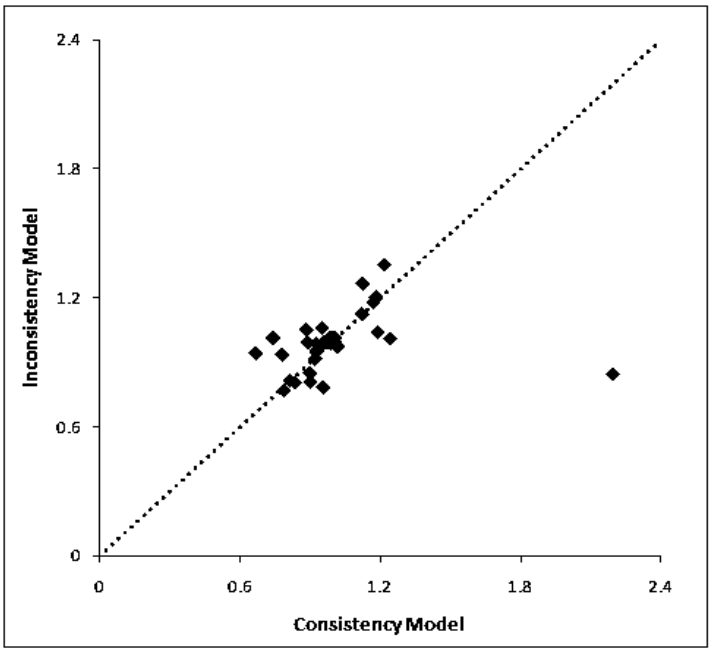
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.74 (0.56 to 0.96)	–25.35 (–41.59 to –3.44)
SOF24 + RBV (low dose) 24		0.53 (0.10 to 0.95)	–44.95 (–86.00 to –4.25)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.86 to 1.08)	–0.04 (–12.19 to 7.13)
B24 PR28-48 RGT		0.65 (0.34 to 0.92)	–33.98 (–61.42 to –7.29)
B44 PR48		0.77 (0.40 to 1.00)	–22.56 (–56.27 to 0.32)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.04 (0.96 to 1.67)	3.93 (–3.71 to 37.90)
SOF24 + LDV24 + RBV24		1.04 (0.96 to 1.66)	3.76 (–4.00 to 37.41)
T12 PR24-48 RGT q8		0.73 (0.43 to 1.18)	–25.39 (–51.87 to 10.90)
T12 PR24-48 RGT q12		0.73 (0.30 to 1.18)	–25.58 (–61.60 to 11.37)
T12 PR48 q8		0.86 (0.48 to 1.26)	–13.40 (–47.01 to 15.49)
SOF12 + PR12		0.72 (0.18 to 1.02)	–25.46 (–72.36 to 1.62)
SIM12 PR24-48 RGT		0.76 (0.58 to 1.33)	–22.61 (–39.28 to 18.52)
SOF24 + RBV (low dose) 24		0.55 (0.11 to 1.11)	–40.98 (–84.07 to 7.56)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.90 to 1.55)	1.90 (–8.68 to 31.27)
B24 PR28-48 RGT		0.67 (0.37 to 1.15)	–30.91 (–57.75 to 8.97)
B44 PR48		0.79 (0.43 to 1.31)	–19.42 (–52.58 to 17.90)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.91 to 1.10)	–0.11 (–8.85 to 8.44)
T12 PR24-48 RGT q8		0.69 (0.38 to 0.90)	–30.03 (–59.15 to –9.14)
T12 PR24-48 RGT q12		0.69 (0.26 to 0.94)	–30.53 (–69.79 to –5.87)
T12 PR48 q8		0.81 (0.43 to 0.98)	–18.56 (–54.70 to –2.24)
SOF12 + PR12		0.67 (0.15 to 0.96)	–31.73 (–81.50 to –4.27)
SIM12 PR24-48 RGT		0.72 (0.55 to 0.92)	–27.22 (–43.76 to –7.55)
SOF24 + RBV (low dose) 24		0.52 (0.10 to 0.93)	–47.02 (–87.65 to –6.75)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.81 to 1.07)	–1.79 (–17.88 to 6.49)
B24 PR28-48 RGT		0.63 (0.33 to 0.88)	–35.79 (–64.38 to –10.71)
B44 PR48		0.75 (0.39 to 0.97)	–24.43 (–58.78 to –3.33)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.69 (0.38 to 0.90)	–29.98 (–59.00 to –8.82)
T12 PR24-48 RGT q12		0.69 (0.26 to 0.94)	–30.35 (–70.01 to –5.77)
T12 PR48 q8		0.81 (0.43 to 0.98)	–18.41 (–54.83 to –2.05)
SOF12 + PR12		0.68 (0.15 to 0.96)	–31.51 (–80.70 to –4.29)
SIM12 PR24-48 RGT		0.72 (0.55 to 0.92)	–27.11 (–43.53 to –7.16)
SOF24 + RBV (low dose) 24		0.52 (0.10 to 0.93)	–46.80 (–87.56 to –6.51)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.81 to 1.08)	–1.68 (–18.00 to 6.60)
B24 PR28-48 RGT		0.63 (0.33 to 0.89)	–35.70 (–64.27 to –10.44)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B44 PR48		0.75 (0.39 to 0.97)	–24.36 (–58.48 to –2.78)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.99 (0.51 to 1.39)	–0.46 (–27.80 to 19.98)
T12 PR48 q8		1.16 (0.59 to 2.05)	11.21 (–30.27 to 42.05)
SOF12 + PR12		0.99 (0.22 to 1.74)	–0.91 (–55.93 to 34.68)
SIM12 PR24-48 RGT		1.04 (0.74 to 2.02)	2.72 (–20.22 to 37.93)
SOF24 + RBV (low dose) 24		0.76 (0.15 to 1.72)	–16.20 (–62.99 to 32.57)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.41 (1.03 to 2.51)	27.94 (2.51 to 55.46)
B24 PR28-48 RGT		0.91 (0.47 to 1.77)	–5.78 (–38.63 to 30.89)
B44 PR48		1.08 (0.56 to 2.04)	5.29 (–32.34 to 40.96)
T12 PR48 q8	T12 PR24-48 RGT q12	1.17 (0.59 to 2.87)	11.65 (–32.53 to 51.41)
SOF12 + PR12		1.00 (0.22 to 2.29)	–0.21 (–58.01 to 41.97)
SIM12 PR24-48 RGT		1.05 (0.72 to 2.91)	3.17 (–23.24 to 47.69)
SOF24 + RBV (low dose) 24		0.77 (0.15 to 2.24)	–15.54 (–64.79 to 39.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.42 (1.01 to 3.67)	28.24 (0.37 to 66.52)
B24 PR28-48 RGT		0.92 (0.46 to 2.43)	–5.27 (–40.94 to 40.15)
B44 PR48		1.09 (0.55 to 2.83)	5.76 (–34.11 to 50.51)
SOF12 + PR12	T12 PR48 q8	0.86 (0.21 to 1.51)	–11.15 (–60.65 to 26.21)
SIM12 PR24-48 RGT		0.90 (0.64 to 1.84)	–8.02 (–31.77 to 35.25)
SOF24 + RBV (low dose) 24		0.66 (0.13 to 1.58)	–26.51 (–73.81 to 28.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.21 (1.01 to 2.16)	16.31 (0.57 to 48.63)
B24 PR28-48 RGT		0.79 (0.41 to 1.62)	–16.74 (–48.13 to 27.60)
B44 PR48		0.93 (0.48 to 1.86)	–5.26 (–43.17 to 36.98)
SIM12 PR24-48 RGT	SOF12 + PR12	1.07 (0.69 to 5.20)	4.47 (–26.86 to 59.84)
SOF24 + RBV (low dose) 24		0.80 (0.15 to 3.82)	–12.60 (–69.42 to 51.96)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.44 (1.03 to 6.37)	28.91 (3.03 to 76.90)
B24 PR28-48 RGT		0.93 (0.50 to 4.39)	–4.70 (–40.92 to 52.88)
B44 PR48		1.10 (0.56 to 5.07)	6.66 (–35.74 to 62.78)
SOF24 + RBV (low dose) 24	SIM12 PR24-48 RGT	0.72 (0.13 to 1.40)	–19.89 (–65.55 to 24.47)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.35 (0.99 to 1.77)	25.09 (–0.54 to 41.64)
B24 PR28-48 RGT		0.88 (0.43 to 1.30)	–8.51 (–43.06 to 17.61)
B44 PR48		1.04 (0.51 to 1.48)	2.48 (–36.76 to 27.92)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + RBV (low dose) 24	1.88 (1.03 to 9.52)	44.45 (2.62 to 86.05)
B24 PR28-48 RGT		1.22 (0.51 to 6.32)	10.89 (–38.43 to 59.15)
B44 PR48		1.41 (0.59 to 7.44)	21.12 (–31.13 to 70.95)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B24 PR28-48 RGT	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.65 (0.34 to 0.95)	–33.67 (–61.54 to –4.29)
B44 PR48		0.77 (0.40 to 1.04)	–22.24 (–55.93 to 2.98)
B44 PR48	B24 PR28-48 RGT	1.17 (0.59 to 2.31)	10.94 (–29.00 to 45.44)
Random effect model	Residual deviance	38.18 vs. 38 data points	
	Deviance information criteria	209.769	
Fixed effect model	Residual deviance	38.94 vs. 38 data points	
	Deviance information criteria	209.12	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 31: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 TREATMENT-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Genotype 1b

TABLE 98: SVR GENOTYPE 1B TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.61 (0.45 to 2.21)	32.42 (–30.84 to 52.91)
SOF12 + LDV12		1.89 (1.58 to 2.34)	46.27 (35.84 to 56.27)
SOF8 + LDV8 + RBV8		1.80 (1.24 to 2.27)	42.38 (12.79 to 54.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12		1.86 (1.55 to 2.30)	44.72 (34.24 to 54.62)
SOF24 + LDV24 + RBV24		1.88 (1.57 to 2.33)	45.84 (35.66 to 55.77)
T12 PR24-48 RGT q8		1.55 (1.26 to 1.88)	28.65 (13.95 to 39.73)
T12 PR24-48 RGT q12		1.59 (1.20 to 1.97)	31.18 (10.76 to 43.56)
T12 PR48 q8		0.91 (0.14 to 1.96)	–4.66 (–49.63 to 43.21)
SIM12 PR24-48 RGT		1.63 (1.39 to 1.96)	32.49 (23.21 to 41.49)
SOF24 + RBV (low dose) 24		1.55 (0.34 to 2.19)	29.11 (–36.80 to 52.21)
PAR/RIT12 + OMB12 + DAS12		1.86 (1.43 to 2.33)	45.17 (24.22 to 56.26)
DCV24 + ASU24		1.76 (1.48 to 2.13)	39.23 (29.63 to 48.07)
SOF12 + PR12		1.56 (0.56 to 2.09)	29.69 (–22.86 to 48.94)
B44 PR48		1.40 (0.66 to 2.03)	21.14 (–18.64 to 46.21)
B24 PR28-48 RGT		1.44 (1.14 to 1.77)	23.27 (7.11 to 35.64)
SOF12 + LDV12	SOF24 + RBV24	1.16 (0.99 to 3.89)	13.39 (–1.27 to 72.97)
SOF8 + LDV8 + RBV8		1.11 (0.74 to 3.75)	9.59 (–23.98 to 70.02)
SOF12 + LDV12 + RBV12		1.14 (0.97 to 3.85)	11.75 (–3.25 to 71.80)
SOF24 + LDV24 + RBV24		1.15 (0.99 to 3.88)	12.96 (–1.25 to 72.61)
T12 PR24-48 RGT q8		0.96 (0.70 to 3.28)	–3.52 (–28.09 to 58.09)
T12 PR24-48 RGT q12		0.99 (0.69 to 3.37)	–1.09 (–29.08 to 60.37)
T12 PR48 q8		0.61 (0.09 to 2.15)	–31.57 (–83.16 to 33.80)
SIM12 PR24-48 RGT		1.00 (0.80 to 3.42)	0.11 (–19.06 to 61.60)
SOF24 + RBV (low dose) 24		0.97 (0.47 to 1.36)	–2.40 (–32.62 to 17.24)
PAR/RIT12 + OMB12 + DAS12		1.14 (0.90 to 3.79)	12.02 (–8.80 to 70.94)
DCV24 + ASU24		1.08 (0.89 to 3.67)	6.41 (–10.31 to 67.36)
SOF12 + PR12		0.99 (0.37 to 3.00)	–0.89 (–56.03 to 53.99)
B44 PR48		0.89 (0.41 to 2.98)	–9.32 (–53.27 to 51.54)
B24 PR28-48 RGT		0.90 (0.63 to 3.14)	–8.87 (–34.44 to 54.25)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.66 to 1.02)	–2.10 (–33.13 to 1.82)
SOF12 + LDV12 + RBV12		0.99 (0.93 to 1.02)	–1.24 (–7.05 to 2.22)
SOF24 + LDV24 + RBV24		1.00 (0.96 to 1.04)	–0.43 (–3.97 to 3.60)
T12 PR24-48 RGT q8		0.83 (0.65 to 0.93)	–17.05 (–34.24 to –7.15)
T12 PR24-48 RGT q12		0.85 (0.63 to 0.96)	–14.41 (–36.64 to –3.97)
T12 PR48 q8		0.48 (0.08 to 0.92)	–50.85 (–90.61 to –7.88)

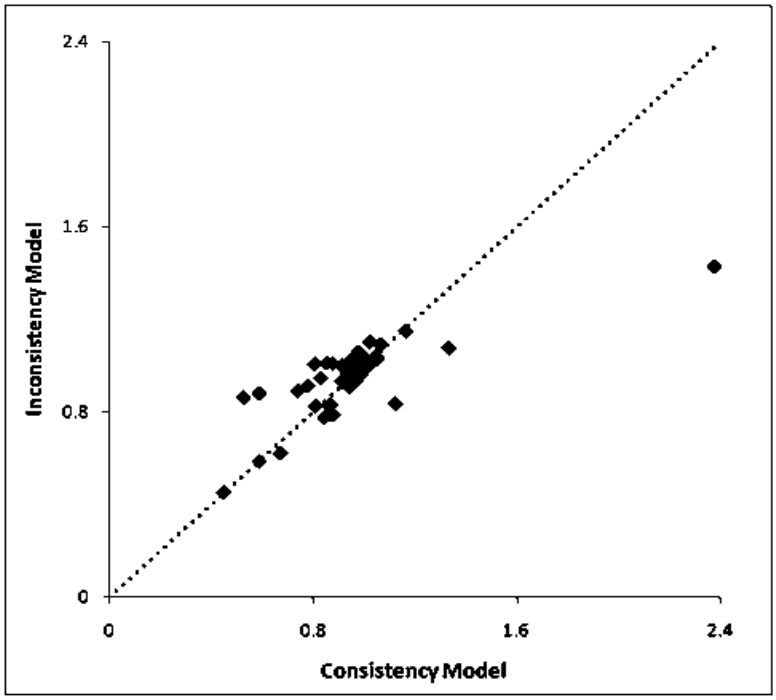
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.86 (0.76 to 0.93)	–13.37 (–23.28 to –6.45)
SOF24 + RBV (low dose) 24		0.83 (0.18 to 1.01)	–16.99 (–80.32 to 0.96)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.78 to 1.04)	–0.27 (–21.18 to 3.98)
DCV24 + ASU24		0.93 (0.85 to 0.98)	–6.71 (–14.51 to –1.51)
SOF12 + PR12		0.84 (0.30 to 0.99)	–15.68 (–67.64 to –1.46)
B44 PR48		0.75 (0.35 to 0.96)	–24.79 (–63.70 to –3.60)
B24 PR28-48 RGT		0.77 (0.58 to 0.90)	–22.61 (–41.21 to –10.17)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.94 to 1.50)	0.86 (–5.44 to 31.92)
SOF24 + LDV24 + RBV24		1.02 (0.97 to 1.53)	1.74 (–3.13 to 33.70)
T12 PR24-48 RGT q8		0.86 (0.68 to 1.26)	–13.31 (–31.35 to 16.90)
T12 PR24-48 RGT q12		0.89 (0.65 to 1.30)	–10.67 (–33.66 to 20.06)
T12 PR48 q8		0.51 (0.08 to 1.06)	–45.81 (–89.02 to 4.32)
SIM12 PR24-48 RGT		0.90 (0.78 to 1.32)	–10.12 (–21.21 to 20.54)
SOF24 + RBV (low dose) 24		0.86 (0.19 to 1.34)	–13.20 (–77.61 to 22.68)
PAR/RIT12 + OMB12 + DAS12		1.02 (0.81 to 1.51)	1.73 (–18.32 to 32.56)
DCV24 + ASU24		0.96 (0.87 to 1.43)	–3.96 (–13.03 to 27.37)
SOF12 + PR12		0.88 (0.33 to 1.26)	–11.63 (–61.29 to 17.62)
B44 PR48		0.79 (0.37 to 1.20)	–20.28 (–60.49 to 14.47)
B24 PR28-48 RGT		0.80 (0.60 to 1.19)	–18.73 (–38.20 to 12.51)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.97 to 1.08)	0.85 (–3.13 to 7.29)
T12 PR24-48 RGT q8		0.84 (0.67 to 0.95)	–15.62 (–32.35 to –4.92)
T12 PR24-48 RGT q12		0.87 (0.64 to 0.98)	–13.01 (–35.14 to –1.76)
T12 PR48 q8		0.49 (0.08 to 0.94)	–49.32 (–89.22 to –5.24)
SIM12 PR24-48 RGT		0.88 (0.77 to 0.96)	–11.92 (–21.89 to –4.01)
SOF24 + RBV (low dose) 24		0.84 (0.19 to 1.03)	–15.57 (–78.13 to 3.08)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.80 to 1.08)	0.83 (–19.46 to 7.42)
DCV24 + ASU24		0.94 (0.86 to 1.02)	–5.36 (–13.20 to 1.62)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.85 (0.30 to 1.01)	–14.22 (–66.65 to 0.98)
B44 PR48		0.76 (0.36 to 0.98)	–23.34 (–62.17 to –1.43)
B24 PR28-48 RGT		0.78 (0.59 to 0.92)	–21.07 (–39.83 to –8.09)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.83 (0.66 to 0.93)	–16.63 (–33.67 to –6.84)
T12 PR24-48 RGT q12		0.86 (0.63 to 0.96)	–13.97 (–36.40 to –3.63)
T12 PR48 q8		0.49 (0.08 to 0.92)	–50.38 (–90.03 to –7.37)
SIM12 PR24-48 RGT		0.87 (0.77 to 0.93)	–12.91 (–22.41 to –6.59)
SOF24 + RBV (low dose) 24		0.83 (0.18 to 1.01)	–16.66 (–80.03 to 0.92)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.80 to 1.03)	0.14 (–19.81 to 3.30)
DCV24 + ASU24		0.94 (0.86 to 0.98)	–6.27 (–13.95 to –1.56)
SOF12 + PR12		0.84 (0.30 to 1.00)	–15.25 (–68.65 to 0.16)
B44 PR48		0.75 (0.35 to 0.97)	–24.45 (–63.23 to –3.27)
B24 PR28-48 RGT		0.77 (0.58 to 0.90)	–22.11 (–40.91 to –9.73)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.03 (0.85 to 1.18)	2.44 (–11.01 to 12.67)
T12 PR48 q8		0.59 (0.10 to 1.20)	–32.85 (–77.17 to 14.68)
SIM12 PR24-48 RGT		1.05 (0.90 to 1.31)	3.69 (–8.43 to 20.03)
SOF24 + RBV (low dose) 24		1.00 (0.22 to 1.40)	0.15 (–64.79 to 27.16)
PAR/RIT12 + OMB12 + DAS12		1.20 (0.94 to 1.52)	16.02 (–4.85 to 33.61)
DCV24 + ASU24		1.13 (0.99 to 1.41)	10.24 (–0.76 to 26.40)
SOF12 + PR12		1.01 (0.37 to 1.35)	1.07 (–51.15 to 24.14)
B44 PR48		0.91 (0.43 to 1.30)	–7.46 (–47.44 to 20.42)
B24 PR28-48 RGT		0.93 (0.71 to 1.19)	–5.37 (–24.20 to 12.72)
T12 PR48 q8	T12 PR24-48 RGT q12	0.58 (0.09 to 1.21)	–34.90 (–79.73 to 14.76)
SIM12 PR24-48 RGT		1.01 (0.87 to 1.37)	1.10 (–11.83 to 23.02)
SOF24 + RBV (low dose) 24		0.97 (0.22 to 1.43)	–2.38 (–66.96 to 27.86)
PAR/RIT12 + OMB12 + DAS12		1.16 (0.91 to 1.58)	13.28 (–7.70 to 36.01)
DCV24 + ASU24		1.09 (0.96 to 1.47)	7.65 (–4.05 to 29.18)
SOF12 + PR12		0.99 (0.36 to 1.38)	–1.19 (–53.77 to 25.00)
B44 PR48		0.88 (0.41 to 1.32)	–9.73 (–50.74 to 21.09)
B24 PR28-48 RGT		0.91 (0.68 to 1.23)	–7.70 (–27.68 to 14.97)
SIM12 PR24-48 RGT	T12 PR48 q8	1.79 (0.90 to 10.83)	37.30 (–8.69 to 79.20)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		1.54 (0.34 to 10.10)	27.52 (–45.07 to 82.96)
PAR/RIT12 + OMB12 + DAS12		2.03 (1.04 to 12.20)	48.91 (3.76 to 90.03)
DCV24 + ASU24		1.93 (0.99 to 11.57)	43.90 (–0.82 to 85.06)
SOF12 + PR12		1.63 (0.51 to 10.29)	30.35 (–34.70 to 81.80)
B44 PR48		1.50 (0.53 to 9.62)	24.04 (–36.62 to 74.32)
B24 PR28-48 RGT		1.58 (0.75 to 9.94)	27.55 (–21.79 to 73.14)
SOF24 + RBV (low dose) 24	SIM12 PR24-48 RGT	0.96 (0.21 to 1.24)	–3.69 (–67.92 to 18.29)
PAR/RIT12 + OMB12 + DAS12		1.15 (0.91 to 1.30)	12.44 (–7.68 to 22.67)
DCV24 + ASU24		1.08 (1.00 to 1.19)	6.49 (0.05 to 14.54)
SOF12 + PR12		0.97 (0.34 to 1.20)	–2.37 (–55.54 to 15.96)
B44 PR48		0.87 (0.41 to 1.16)	–11.38 (–50.86 to 12.40)
B24 PR28-48 RGT		0.89 (0.68 to 1.06)	–9.01 (–27.27 to 4.57)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	1.19 (0.92 to 5.32)	15.82 (–7.69 to 78.79)
DCV24 + ASU24		1.12 (0.90 to 5.11)	10.03 (–9.82 to 74.10)
SOF12 + PR12		1.03 (0.38 to 3.92)	2.09 (–54.57 to 61.66)
B44 PR48		0.93 (0.42 to 4.32)	–5.84 (–51.26 to 60.84)
B24 PR28-48 RGT		0.93 (0.64 to 4.18)	–5.41 (–33.74 to 59.61)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.94 (0.85 to 1.18)	–6.05 (–14.35 to 14.19)
SOF12 + PR12		0.85 (0.31 to 1.06)	–14.25 (–67.21 to 5.44)
B44 PR48		0.76 (0.36 to 1.04)	–23.39 (–62.48 to 3.58)
B24 PR28-48 RGT		0.78 (0.58 to 1.02)	–21.36 (–40.77 to 1.41)
SOF12 + PR12	DCV24 + ASU24	0.90 (0.32 to 1.09)	–8.79 (–62.11 to 8.07)
B44 PR48		0.80 (0.38 to 1.05)	–17.95 (–57.21 to 4.62)
B24 PR28-48 RGT		0.83 (0.63 to 0.97)	–15.61 (–33.65 to –3.02)
B44 PR48	SOF12 + PR12	0.90 (0.41 to 2.56)	–7.97 (–52.90 to 50.18)
B24 PR28-48 RGT		0.93 (0.67 to 2.59)	–6.22 (–31.00 to 47.14)
B24 PR28-48 RGT	B44 PR48	1.03 (0.69 to 2.20)	2.19 (–27.37 to 42.50)
Random effect model	Residual deviance	39.64 vs. 42 data points	
	Deviance information criteria	209.409	
Fixed effect model	Residual deviance	39.56 vs. 42 data points	
	Deviance information criteria	208.133	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 32: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1B TREATMENT-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



With Cirrhosis

TABLE 99: SVR GENOTYPE 1 TREATMENT-NAIVE WITH CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	2.18 (0.93 to 2.95)	48.42 (–2.57 to 63.34)
T12 PR24-48 RGT q8		1.43 (0.64 to 2.20)	17.16 (–14.64 to 42.87)
T12 PR24-48 RGT q12		1.55 (0.56 to 2.32)	21.73 (–17.87 to 47.59)
SOF12 + PR12		2.04 (1.13 to 2.75)	41.98 (5.31 to 58.28)
SIM12 PR24-48 RGT		1.70 (1.06 to 2.39)	27.76 (2.43 to 47.38)
B24 PR28-48 RGT		0.65 (0.16 to 1.65)	–13.87 (–36.76 to 23.90)
SOF12 + SIM12 + RBV12		2.24 (0.67 to 3.01)	51.36 (–13.09 to 65.16)
SOF24 + RBV24		1.76 (0.62 to 2.57)	30.39 (–15.42 to 54.59)
DCV24 + ASU24		2.25 (1.66 to 2.96)	50.01 (29.20 to 62.29)
SOF12 + LDV12		2.41 (1.89 to 3.09)	56.09 (41.08 to 65.83)
SOF12 + LDV12 + RBV12		2.41 (1.92 to 3.10)	56.29 (42.82 to 66.03)
SOF24 + LDV24 + RBV24		2.42 (1.89 to 3.11)	56.60 (41.16 to 66.35)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR24-48 RGT q8	SIM12 + SOF12	0.67 (0.32 to 1.40)	–28.47 (–60.87 to 15.94)
T12 PR24-48 RGT q12		0.73 (0.28 to 1.55)	–24.07 (–63.46 to 22.55)
SOF12 + PR12		0.94 (0.60 to 1.89)	–5.26 (–34.84 to 35.34)
SIM12 PR24-48 RGT		0.78 (0.49 to 1.85)	–19.25 (–47.89 to 32.75)
B24 PR28-48 RGT		0.31 (0.08 to 0.96)	–58.53 (–87.04 to –1.96)
SOF12 + SIM12 + RBV12		1.02 (0.41 to 1.90)	1.85 (–43.91 to 40.09)
SOF24 + RBV24		0.82 (0.31 to 1.83)	–15.67 (–61.01 to 33.66)
DCV24 + ASU24		1.01 (0.79 to 2.41)	1.20 (–19.74 to 52.62)
SOF12 + LDV12		1.08 (0.90 to 2.58)	6.74 (–9.24 to 58.73)
SOF12 + LDV12 + RBV12		1.08 (0.92 to 2.59)	6.99 (–7.82 to 58.99)
SOF24 + LDV24 + RBV24		1.08 (0.91 to 2.59)	7.47 (–8.76 to 59.26)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.07 (0.63 to 1.60)	3.90 (–18.53 to 23.50)
SOF12 + PR12		1.41 (1.05 to 2.40)	23.09 (2.95 to 44.01)
SIM12 PR24-48 RGT		1.19 (0.66 to 2.74)	10.58 (–25.23 to 47.83)
B24 PR28-48 RGT		0.47 (0.11 to 1.48)	–29.09 (–64.23 to 16.74)
SOF12 + SIM12 + RBV12		1.51 (0.54 to 3.31)	30.74 (–27.68 to 65.72)
SOF24 + RBV24		1.20 (0.61 to 2.03)	11.49 (–18.83 to 37.99)
DCV24 + ASU24		1.57 (1.03 to 3.57)	32.25 (2.54 to 65.96)
SOF12 + LDV12		1.68 (1.14 to 3.77)	38.52 (11.05 to 71.05)
SOF12 + LDV12 + RBV12		1.68 (1.15 to 3.78)	38.69 (12.22 to 70.83)
SOF24 + LDV24 + RBV24		1.69 (1.15 to 3.78)	39.17 (11.68 to 71.29)
SOF12 + PR12	T12 PR24-48 RGT q12	1.31 (0.90 to 2.90)	19.08 (–6.71 to 48.45)
SIM12 PR24-48 RGT		1.11 (0.62 to 3.10)	6.53 (–29.83 to 49.07)
B24 PR28-48 RGT		0.44 (0.11 to 1.54)	–33.27 (–68.97 to 16.13)
SOF12 + SIM12 + RBV12		1.41 (0.49 to 3.64)	26.29 (–31.88 to 67.55)
SOF24 + RBV24		1.12 (0.72 to 1.81)	7.14 (–14.71 to 29.66)
DCV24 + ASU24		1.45 (0.98 to 4.05)	27.46 (–1.39 to 68.54)
SOF12 + LDV12		1.55 (1.08 to 4.33)	33.81 (6.73 to 74.10)
SOF12 + LDV12 + RBV12		1.56 (1.09 to 4.31)	34.02 (7.53 to 73.83)
SOF24 + LDV24 + RBV24		1.56 (1.08 to 4.34)	34.64 (6.91 to 73.92)
SIM12 PR24-48 RGT	SOF12 + PR12	0.84 (0.52 to 1.52)	–13.54 (–43.12 to 24.99)
B24 PR28-48 RGT		0.32 (0.08 to 0.89)	–53.63 (–81.32 to –6.62)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.09 (0.37 to 1.84)	7.61 (–48.56 to 42.61)
SOF24 + RBV24		0.86 (0.37 to 1.32)	–11.14 (–47.24 to 17.75)
DCV24 + ASU24		1.09 (0.84 to 1.98)	7.47 (–14.92 to 45.15)
SOF12 + LDV12		1.16 (0.94 to 2.10)	13.31 (–5.23 to 50.44)
SOF12 + LDV12 + RBV12		1.16 (0.97 to 2.09)	13.41 (–2.51 to 50.15)
SOF24 + LDV24 + RBV24		1.17 (0.96 to 2.11)	13.87 (–3.73 to 50.57)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.38 (0.09 to 1.11)	–41.16 (–70.59 to 5.57)
SOF12 + SIM12 + RBV12		1.31 (0.40 to 2.10)	21.68 (–41.38 to 50.57)
SOF24 + RBV24		1.03 (0.36 to 1.77)	2.00 (–45.42 to 37.74)
DCV24 + ASU24		1.32 (0.95 to 2.10)	21.69 (–4.18 to 48.67)
SOF12 + LDV12		1.41 (1.08 to 2.20)	27.99 (6.69 to 52.83)
SOF12 + LDV12 + RBV12		1.41 (1.09 to 2.22)	28.14 (7.70 to 53.42)
SOF24 + LDV24 + RBV24		1.42 (1.08 to 2.21)	28.55 (6.56 to 53.00)
SOF12 + SIM12+ RBV12	B24 PR28-48 RGT	3.26 (0.89 to 13.53)	61.17 (–3.66 to 89.85)
SOF24 + RBV24		2.58 (0.71 to 10.54)	41.94 (–12.56 to 76.49)
DCV24 + ASU24		3.50 (1.38 to 13.59)	63.37 (22.73 to 85.94)
SOF12 + LDV12		3.75 (1.49 to 14.52)	69.80 (29.96 to 90.37)
SOF12 + LDV12 + RBV12		3.76 (1.51 to 14.45)	70.11 (31.63 to 90.20)
SOF24 + LDV24 + RBV24		3.77 (1.50 to 14.50)	70.30 (30.99 to 90.43)
SOF24 + RBV24	SOF12 + SIM12 + RBV12	0.81 (0.30 to 2.29)	–17.55 (–65.49 to 42.06)
DCV24 + ASU24		0.98 (0.77 to 3.31)	–1.70 (–22.52 to 62.71)
SOF12 + LDV12		1.04 (0.88 to 3.56)	3.40 (–12.04 to 68.71)
SOF12 + LDV12 + RBV12		1.04 (0.90 to 3.57)	3.51 (–9.80 to 68.91)
SOF24 + LDV24 + RBV24		1.04 (0.88 to 3.59)	4.04 (–11.29 to 69.86)
DCV24 + ASU24	SOF24 + RBV24	1.27 (0.90 to 3.67)	19.02 (–8.53 to 66.42)
SOF12 + LDV12		1.36 (1.00 to 3.88)	24.98 (0.09 to 71.25)
SOF12 + LDV12 + RBV12		1.36 (1.01 to 3.88)	25.26 (0.77 to 71.88)
SOF24 + LDV24 + RBV24		1.36 (1.00 to 3.89)	25.64 (0.28 to 71.67)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	DCV24 + ASU24	1.07 (0.90 to 1.35)	5.83 (–9.18 to 24.72)
SOF12 + LDV12 + RBV12		1.07 (0.92 to 1.35)	6.01 (–7.56 to 24.96)
SOF24 + LDV24 + RBV24		1.07 (0.91 to 1.34)	6.35 (–8.01 to 24.71)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	1.00 (0.91 to 1.13)	0.06 (–8.70 to 10.50)
SOF24 + LDV24 + RBV24		1.00 (0.88 to 1.15)	0.39 (–11.38 to 12.54)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.88 to 1.13)	0.32 (–11.85 to 11.01)
Random effect model	Residual deviance	26.88 vs. 30 data points	
	Deviance information criteria	141.592	
Fixed effect model	Residual deviance	26.53 vs. 30 data points	
	Deviance Information Criteria	140.778	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 100: SVR GENOTYPE 1 TREATMENT-NAIVE WITHOUT CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS —RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	1.98 (1.78 to 2.23)	48.13 (42.00 to 53.86)
SOF8 + LDV8 + RBV8		1.93 (1.67 to 2.19)	46.08 (34.07 to 52.70)
SOF12 + LDV12 + RBV12		1.97 (1.77 to 2.22)	47.80 (41.46 to 53.63)
SOF24 + LDV24 + RBV24		1.98 (1.77 to 2.24)	48.48 (41.12 to 54.46)
T12 PR24-48 RGT q8		1.56 (1.31 to 1.77)	27.37 (15.57 to 35.66)
T12 PR24-48 RGT q12		1.53 (1.23 to 1.76)	25.89 (11.30 to 35.63)
T12 PR48 q8		1.60 (1.00 to 2.05)	29.67 (–0.06 to 47.35)
SOF12 PR24-48 RGT		1.73 (1.25 to 2.06)	36.01 (12.31 to 48.07)
SIM12 PR24-48 RGT		1.59 (1.41 to 1.78)	29.01 (21.13 to 35.90)
B44 PR48		1.78 (1.41 to 2.08)	38.57 (20.63 to 48.74)
SOF24 + RBV24		1.63 (1.29 to 1.90)	31.35 (14.35 to 41.59)
PAR/RIT12 + OMB12 + DAS12		1.93 (1.34 to 2.21)	46.46 (16.32 to 53.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.94 (1.75 to 2.18)	46.42 (40.01 to 52.07)
DCV24 + ASU24		1.82 (1.64 to 2.03)	40.30 (33.46 to 46.13)
DCV12 + SOF12		1.90 (1.28 to 2.21)	44.71 (13.88 to 53.72)
SOF12 + PR12		1.77 (1.28 to 2.07)	38.24 (13.72 to 48.79)
B24 PR28-48 RGT		1.54 (1.27 to 1.78)	26.51 (13.35 to 36.55)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12		1.80 (0.80 to 2.19)	39.97 (–10.17 to 53.34)
SOF12 + SIM12 + RBV12		1.77 (0.86 to 2.18)	37.97 (–7.06 to 52.82)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.88 to 1.01)	–1.70 (–11.03 to 0.76)
SOF12 + LDV12 + RBV12		1.00 (0.95 to 1.04)	–0.26 (–4.85 to 3.72)
SOF24 + LDV24 + RBV24		1.00 (0.94 to 1.05)	0.41 (–5.54 to 4.93)
T12 PR24-48 RGT q8		0.79 (0.67 to 0.87)	–20.68 (–32.35 to –12.21)
T12 PR24-48 RGT q12		0.77 (0.62 to 0.87)	–22.12 (–36.57 to –12.69)
T12 PR48 q8		0.81 (0.53 to 0.97)	–18.40 (–46.06 to –2.51)
SOF12 PR24-48 RGT		0.88 (0.64 to 0.99)	–12.03 (–35.30 to –0.95)
SIM12 PR24-48 RGT		0.80 (0.72 to 0.88)	–19.09 (–27.55 to –11.50)
B44 PR48		0.90 (0.73 to 0.99)	–9.39 (–26.51 to –0.62)
SOF24 + RBV24		0.83 (0.65 to 0.93)	–16.64 (–33.40 to –6.98)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.67 to 1.04)	–1.19 (–31.73 to 4.18)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.93 to 1.03)	–1.67 (–6.67 to 2.79)
DCV24 + ASU24		0.92 (0.85 to 0.98)	–7.78 (–14.50 to –1.82)
DCV12 + SOF12		0.97 (0.66 to 1.04)	–2.99 (–32.89 to 3.57)
SOF12 + PR12		0.90 (0.67 to 0.98)	–9.76 (–31.50 to –2.20)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–21.63 (–35.17 to –10.71)
SIM12 + SOF12		0.92 (0.41 to 1.04)	–7.96 (–57.50 to 3.37)
SOF12 + SIM12 + RBV12		0.90 (0.45 to 1.04)	–10.07 (–54.00 to 3.37)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.02 (0.96 to 1.15)	1.46 (–3.55 to 12.76)
SOF24 + LDV24 + RBV24		1.02 (0.96 to 1.16)	2.12 (–3.98 to 13.69)
T12 PR24-48 RGT q8		0.81 (0.68 to 0.94)	–18.50 (–30.79 to –5.46)
T12 PR24-48 RGT q12		0.79 (0.64 to 0.92)	–19.82 (–34.60 to –7.14)
T12 PR48 q8		0.83 (0.54 to 1.04)	–16.17 (–44.52 to 3.15)
SOF12 PR24-48 RGT		0.90 (0.65 to 1.06)	–9.89 (–32.98 to 5.02)
SIM12 PR24-48 RGT		0.82 (0.73 to 0.95)	–17.01 (–26.22 to –4.25)
B44 PR48		0.92 (0.74 to 1.07)	–7.27 (–24.44 to 6.14)
SOF24 + RBV24		0.85 (0.67 to 0.99)	–14.49 (–31.43 to –0.97)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.69 to 1.14)	0.35 (–29.25 to 11.96)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.94 to 1.14)	0.05 (–5.58 to 12.04)
DCV24 + ASU24		0.94 (0.86 to 1.08)	–5.84 (–13.33 to 6.53)
DCV12 + SOF12		0.99 (0.68 to 1.13)	–1.06 (–30.99 to 11.19)
SOF12 + PR12		0.92 (0.70 to 1.01)	–7.39 (–27.98 to 1.09)
B24 PR28-48 RGT		0.80 (0.65 to 0.94)	–19.46 (–33.33 to –4.89)
SIM12 + SOF12		0.94 (0.42 to 1.12)	–5.84 (–55.97 to 10.22)
SOF12 + SIM12 + RBV12		0.92 (0.45 to 1.12)	–7.95 (–52.22 to 10.07)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.95 to 1.06)	0.63 (–4.84 to 5.52)
T12 PR24-48 RGT q8		0.79 (0.67 to 0.88)	–20.40 (–32.28 to –11.66)
T12 PR24-48 RGT q12		0.77 (0.62 to 0.87)	–21.83 (–36.30 to –12.12)
T12 PR48 q8		0.81 (0.53 to 0.98)	–18.12 (–45.76 to –2.38)
SOF12 PR24-48 RGT		0.88 (0.64 to 0.99)	–11.71 (–35.13 to –0.59)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.88)	–18.79 (–27.22 to –10.94)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B44 PR48		0.91 (0.73 to 1.00)	–9.09 (–26.37 to 0.04)
SOF24 + RBV24		0.83 (0.66 to 0.93)	–16.36 (–33.32 to –6.32)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.68 to 1.05)	–0.90 (–31.02 to 4.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.93 to 1.04)	–1.37 (–6.54 to 3.48)
DCV24 + ASU24		0.92 (0.85 to 0.99)	–7.48 (–14.42 to –1.13)
DCV12 + SOF12		0.97 (0.66 to 1.05)	–2.79 (–32.64 to 4.51)
SOF12 + PR12		0.90 (0.65 to 1.00)	–9.34 (–33.39 to –0.15)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–21.34 (–34.84 to –10.30)
SIM12 + SOF12		0.92 (0.41 to 1.05)	–7.82 (–57.40 to 4.38)
SOF12 + SIM12 + RBV12		0.90 (0.45 to 1.04)	–9.73 (–53.86 to 3.61)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.78 (0.66 to 0.88)	–21.03 (–32.99 to –11.49)
T12 PR24-48 RGT q12		0.77 (0.62 to 0.88)	–22.43 (–37.44 to –11.62)
T12 PR48 q8		0.81 (0.53 to 0.97)	–18.58 (–46.06 to –2.65)
SOF12 PR24-48 RGT		0.87 (0.64 to 0.99)	–12.28 (–35.63 to –0.79)
SIM12 PR24-48 RGT		0.80 (0.71 to 0.89)	–19.40 (–28.00 to –10.52)
B44 PR48		0.90 (0.72 to 1.00)	–9.69 (–27.21 to –0.08)
SOF24 + RBV24		0.83 (0.65 to 0.93)	–16.96 (–34.16 to –6.30)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.68 to 1.03)	–1.44 (–30.19 to 2.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.92 to 1.05)	–2.06 (–7.53 to 4.17)
DCV24 + ASU24		0.92 (0.85 to 0.99)	–8.11 (–15.19 to –0.88)
DCV12 + SOF12		0.96 (0.66 to 1.05)	–3.48 (–32.97 to 4.24)
SOF12 + PR12		0.90 (0.65 to 1.00)	–9.87 (–34.48 to 0.01)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–21.91 (–35.48 to –10.56)
SIM12 + SOF12		0.91 (0.41 to 1.04)	–8.38 (–58.21 to 3.72)
SOF12 + SIM12 + RBV12		0.89 (0.45 to 1.04)	–10.42 (–54.12 to 3.34)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.98 (0.83 to 1.12)	–1.32 (–13.00 to 8.10)
T12 PR48 q8		1.03 (0.66 to 1.34)	2.31 (–27.27 to 23.11)
SOF12 PR24-48 RGT		1.11 (0.81 to 1.36)	8.60 (–15.30 to 24.63)
SIM12 PR24-48 RGT		1.02 (0.89 to 1.22)	1.63 (–8.80 to 14.36)
B44 PR48		1.14 (0.91 to 1.39)	11.11 (–7.28 to 26.03)
SOF24 + RBV24		1.05 (0.86 to 1.23)	3.94 (–10.65 to 15.63)
PAR/RIT12 + OMB12 + DAS12		1.24 (0.86 to 1.48)	18.71 (–10.38 to 31.40)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.13 to 1.46)	18.98 (11.11 to 29.98)
DCV24 + ASU24		1.17 (1.04 to 1.39)	12.88 (3.14 to 25.34)
DCV12 + SOF12		1.22 (0.83 to 1.47)	16.93 (–13.20 to 31.11)
SOF12 + PR12		1.14 (0.83 to 1.37)	10.80 (–13.42 to 24.94)
B24 PR28-48 RGT		0.99 (0.80 to 1.21)	–0.90 (–15.85 to 14.45)
SIM12 + SOF12		1.16 (0.52 to 1.46)	12.34 (–37.51 to 30.37)
SOF12 + SIM12 + RBV12		1.14 (0.57 to 1.44)	10.47 (–33.56 to 29.52)
T12 PR48 q8	T12 PR24-48 RGT q12	1.05 (0.67 to 1.42)	3.81 (–26.09 to 26.48)
SOF12 PR24-48 RGT		1.13 (0.82 to 1.45)	9.87 (–13.71 to 28.38)

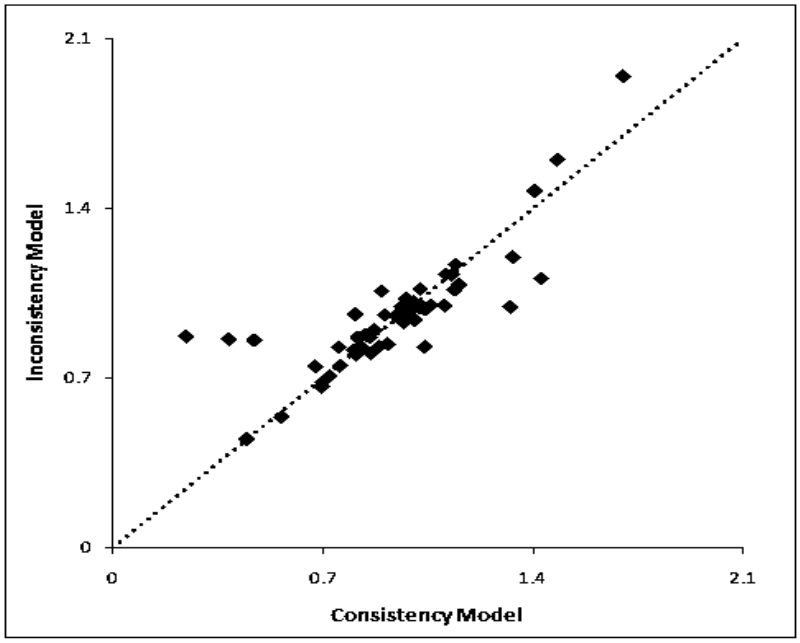
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		1.04 (0.90 to 1.29)	3.04 (–7.81 to 17.91)
B44 PR48		1.17 (0.92 to 1.48)	12.56 (–6.27 to 29.66)
SOF24 + RBV24		1.07 (0.94 to 1.21)	5.16 (–4.41 to 14.32)
PAR/RIT12 + OMB12 + DAS12		1.26 (0.89 to 1.57)	19.92 (–8.40 to 35.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.27 (1.15 to 1.55)	20.49 (12.50 to 32.78)
DCV24 + ASU24		1.19 (1.04 to 1.49)	14.27 (3.30 to 29.51)
DCV12 + SOF12		1.24 (0.85 to 1.57)	18.12 (–11.77 to 34.93)
SOF12 + PR12		1.16 (0.85 to 1.44)	12.09 (–11.11 to 27.66)
B24 PR28-48 RGT		1.01 (0.81 to 1.29)	0.47 (–14.98 to 18.36)
SIM12 + SOF12		1.18 (0.52 to 1.55)	13.53 (–36.84 to 34.19)
SOF12 + SIM12 + RBV12		1.15 (0.57 to 1.53)	11.76 (–32.28 to 33.32)
SOF12 PR24-48 RGT	T12 PR48 q8	1.08 (0.73 to 1.70)	6.26 (–23.21 to 36.45)
SIM12 PR24-48 RGT		0.99 (0.79 to 1.55)	–0.60 (–19.32 to 28.72)
B44 PR48		1.11 (0.84 to 1.73)	8.72 (–14.27 to 38.12)
SOF24 + RBV24		1.02 (0.75 to 1.59)	1.77 (–22.58 to 31.24)
PAR/RIT12 + OMB12 + DAS12		1.20 (0.79 to 1.84)	15.71 (–17.65 to 44.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.21 (1.01 to 1.86)	16.73 (0.68 to 44.43)
DCV24 + ASU24		1.14 (0.92 to 1.75)	10.64 (–6.97 to 38.88)
DCV12 + SOF12		1.17 (0.91 to 1.70)	13.35 (–7.21 to 37.79)
SOF12 + PR12		1.10 (0.76 to 1.74)	8.18 (–21.14 to 38.60)
B24 PR28-48 RGT		0.96 (0.73 to 1.51)	–3.01 (–24.32 to 27.01)
SIM12 + SOF12		1.11 (0.50 to 1.76)	8.92 (–41.03 to 40.92)
SOF12 + SIM12 + RBV12		1.09 (0.54 to 1.73)	7.40 (–37.59 to 39.36)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.92 (0.78 to 1.27)	–6.88 (–21.01 to 16.90)
B44 PR48		1.03 (0.80 to 1.43)	2.47 (–18.03 to 27.12)
SOF24 + RBV24		0.95 (0.72 to 1.31)	–4.41 (–24.89 to 19.45)
PAR/RIT12 + OMB12 + DAS12		1.11 (0.77 to 1.54)	9.74 (–20.44 to 34.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.99 to 1.54)	10.22 (–1.27 to 33.48)
DCV24 + ASU24		1.05 (0.91 to 1.45)	4.19 (–8.29 to 27.79)
DCV12 + SOF12		1.09 (0.75 to 1.51)	7.97 (–21.80 to 32.12)
SOF12 + PR12		1.03 (0.73 to 1.41)	2.21 (–23.78 to 26.19)
B24 PR28-48 RGT		0.89 (0.71 to 1.24)	–9.36 (–26.78 to 15.52)
SIM12 + SOF12		1.04 (0.46 to 1.49)	3.45 (–48.01 to 31.35)
SOF12 + SIM12 + RBV12		1.03 (0.51 to 1.44)	2.26 (–43.21 to 28.77)
B44 PR48	SIM12 PR24-48 RGT	1.12 (0.89 to 1.30)	9.46 (–8.68 to 21.70)
SOF24 + RBV24		1.03 (0.81 to 1.19)	2.33 (–14.90 to 13.98)
PAR/RIT12 + OMB12 + DAS12		1.22 (0.83 to 1.38)	17.23 (–13.26 to 26.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.12 to 1.37)	17.34 (9.89 to 25.62)
DCV24 + ASU24		1.14 (1.03 to 1.29)	11.25 (2.43 to 20.41)
DCV12 + SOF12		1.19 (0.81 to 1.38)	15.41 (–14.95 to 26.65)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		1.12 (0.80 to 1.30)	9.18 (–15.63 to 21.62)
B24 PR28-48 RGT		0.97 (0.79 to 1.13)	–2.50 (–17.10 to 9.77)
SIM12 + SOF12		1.14 (0.50 to 1.37)	10.64 (–39.86 to 26.20)
SOF12 + SIM12 + RBV12		1.11 (0.55 to 1.36)	8.73 (–35.85 to 25.50)
SOF24 + RBV24	B44 PR48	0.92 (0.71 to 1.16)	–7.16 (–26.19 to 11.88)
PAR/RIT12 + OMB12 + DAS12		1.08 (0.75 to 1.36)	7.22 (–21.82 to 25.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.09 (0.98 to 1.35)	7.71 (–1.59 to 24.84)
DCV24 + ASU24		1.02 (0.91 to 1.28)	1.63 (–8.88 to 19.65)
DCV12 + SOF12		1.06 (0.74 to 1.33)	5.48 (–23.45 to 23.99)
SOF12 + PR12		1.00 (0.71 to 1.26)	–0.41 (–25.68 to 18.70)
B24 PR28-48 RGT		0.86 (0.70 to 1.11)	–11.95 (–27.97 to 7.67)
SIM12 + SOF12		1.02 (0.45 to 1.30)	1.37 (–49.69 to 22.36)
SOF12 + SIM12 + RBV12		1.00 (0.50 to 1.29)	–0.44 (–44.38 to 21.31)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	1.18 (0.83 to 1.50)	14.50 (–14.21 to 31.99)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (1.07 to 1.48)	14.97 (6.22 to 30.43)
DCV24 + ASU24		1.11 (0.97 to 1.42)	8.88 (–2.50 to 26.36)
DCV12 + SOF12		1.16 (0.79 to 1.49)	12.69 (–17.26 to 31.50)
SOF12 + PR12		1.08 (0.79 to 1.37)	6.71 (–17.30 to 24.57)
B24 PR28-48 RGT		0.94 (0.76 to 1.23)	–4.83 (–20.80 to 15.09)
SIM12 + SOF12		1.10 (0.49 to 1.46)	8.05 (–41.89 to 30.15)
SOF12 + SIM12 + RBV12		1.08 (0.54 to 1.44)	6.26 (–37.66 to 29.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.00 (0.93 to 1.45)	–0.42 (–6.73 to 29.60)
DCV24 + ASU24		0.94 (0.85 to 1.37)	–6.27 (–14.33 to 24.08)
DCV12 + SOF12		0.98 (0.68 to 1.44)	–1.50 (–30.97 to 28.75)
SOF12 + PR12		0.92 (0.67 to 1.29)	–7.38 (–31.66 to 19.83)
B24 PR28-48 RGT		0.80 (0.65 to 1.16)	–19.48 (–33.88 to 10.73)
SIM12 + SOF12		0.94 (0.42 to 1.33)	–5.47 (–54.82 to 23.02)
SOF12 + SIM12 + RBV12		0.92 (0.46 to 1.34)	–7.28 (–51.64 to 23.42)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.94 (0.86 to 1.00)	–6.06 (–13.14 to 0.39)
DCV12 + SOF12		0.99 (0.67 to 1.07)	–1.41 (–31.12 to 5.98)
SOF12 + PR12		0.92 (0.66 to 1.02)	–7.90 (–32.15 to 1.78)
B24 PR28-48 RGT		0.79 (0.65 to 0.91)	–19.94 (–33.63 to –8.70)
SIM12 + SOF12		0.93 (0.41 to 1.07)	–6.42 (–56.28 to 6.07)
SOF12 + SIM12 + RBV12		0.91 (0.46 to 1.06)	–8.30 (–52.10 to 5.42)
DCV12 + SOF12	DCV24 + ASU24	1.05 (0.72 to 1.16)	4.43 (–25.70 to 13.74)
SOF12 + PR12		0.98 (0.70 to 1.11)	–1.80 (–26.65 to 9.06)
B24 PR28-48 RGT		0.85 (0.69 to 0.97)	–13.79 (–27.91 to –2.32)
SIM12 + SOF12		1.00 (0.45 to 1.16)	–0.32 (–49.62 to 13.39)
SOF12 + SIM12 + RBV12		0.98 (0.48 to 1.15)	–2.18 (–46.56 to 12.37)
SOF12 + PR12	DCV12 + SOF12	0.94 (0.67 to 1.38)	–5.85 (–31.20 to 25.09)
B24 PR28-48 RGT		0.81 (0.65 to 1.20)	–17.62 (–33.37 to 13.24)
SIM12 + SOF12		0.96 (0.44 to 1.37)	–4.09 (–52.19 to 25.16)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		0.94 (0.47 to 1.38)	–5.74 (–49.66 to 25.18)
B24 PR28-48 RGT	SOF12 + PR12	0.87 (0.70 to 1.22)	–11.65 (–27.60 to 14.20)
SIM12 + SOF12		1.02 (0.46 to 1.45)	1.58 (–48.65 to 29.35)
SOF12 + SIM12 + RBV12		0.99 (0.49 to 1.45)	–0.47 (–44.94 to 29.39)
SIM12 + SOF12	B24 PR28-48 RGT	1.17 (0.52 to 1.50)	12.81 (–36.54 to 32.12)
SOF12 + SIM12 + RBV12		1.15 (0.56 to 1.49)	11.14 (–33.76 to 31.41)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.99 (0.54 to 2.06)	–0.70 (-41.44 to 44.63)
Random effect model	Residual deviance	57.81 vs. 61 data points	
	Deviance information criteria	346.783	
Fixed effect model	Residual deviance	60.76 vs. 61 data points	
	Deviance information criteria	346.998	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 33: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Treatment-Experienced Patients
All Patients

TABLE 101: SVR GENOTYPE 1 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	3.69 (3.28 to 4.14)	69.55 (62.24 to 73.72)
SOF24 + LDV24		3.63 (2.72 to 4.15)	68.70 (44.88 to 74.52)
SOF12 + LDV12 + RBV12		3.69 (3.31 to 4.12)	69.22 (64.35 to 72.95)
SOF24 + LDV24 + RBV24		3.74 (3.30 to 4.21)	70.75 (62.74 to 74.96)
T12 PR48 q8		2.89 (2.35 to 3.40)	48.79 (35.90 to 58.41)
SIM12 PR24-48 RGT		2.72 (2.05 to 3.28)	44.29 (27.26 to 56.63)
SIM12 PR48		2.85 (2.28 to 3.36)	47.62 (34.04 to 57.50)
B32 PR36-48 RGT		2.48 (1.72 to 3.21)	38.23 (18.96 to 54.62)
SOF12 + RBV12		0.69 (0.08 to 2.17)	–7.90 (–23.84 to 29.81)
PAR/RIT12 + OMB12 + DAS12		3.67 (2.31 to 4.17)	69.88 (33.76 to 74.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.75 (3.35 to 4.20)	70.86 (65.37 to 74.46)
DCV24 + ASU24		3.07 (2.50 to 3.59)	53.31 (39.87 to 62.33)
DCV24 + ASU24 + PR24		3.53 (3.03 to 4.01)	65.50 (54.48 to 71.34)
SIM12 PR24-48 RGT or SIM12 PR48		2.79 (1.79 to 3.52)	46.26 (20.64 to 62.56)
SOF12 + PR12		3.10 (2.30 to 3.70)	54.23 (34.14 to 65.37)
SIM12 + SOF12		3.52 (2.25 to 4.10)	65.68 (32.55 to 73.75)
SOF12 + SIM12 + RBV12		3.58 (1.54 to 4.15)	67.28 (14.11 to 74.80)
SOF24 + LDV24	SOF12 + LDV12	0.99 (0.75 to 1.08)	–0.91 (–24.07 to 7.29)
SOF12 + LDV12 + RBV12		1.00 (0.95 to 1.07)	–0.38 (–4.64 to 5.82)
SOF24 + LDV24 + RBV24		1.01 (0.93 to 1.09)	1.24 (–6.55 to 7.89)
T12 PR48 q8		0.78 (0.65 to 0.90)	–20.62 (–33.38 to –9.39)
SIM12 PR24-48 RGT		0.74 (0.56 to 0.88)	–25.05 (–42.06 to –10.89)
SIM12 PR48		0.77 (0.63 to 0.89)	–21.80 (–35.12 to –10.51)
B32 PR36-48 RGT		0.67 (0.47 to 0.85)	–31.11 (–50.36 to –13.79)
SOF12 + RBV12		0.19 (0.02 to 0.59)	–76.95 (–93.42 to –39.08)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.63 to 1.09)	0.40 (–35.02 to 8.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.95 to 1.10)	1.17 (–4.42 to 8.53)
DCV24 + ASU24		0.83 (0.70 to 0.93)	–15.95 (–28.99 to –6.00)
DCV24 + ASU24 + PR24		0.96 (0.85 to 1.05)	–3.98 (–14.67 to 4.10)
SIM12 PR24-48 RGT or SIM12 PR48		0.76 (0.49 to 0.94)	–22.96 (–48.70 to –6.05)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.84 (0.63 to 0.97)	–15.19 (–34.86 to –2.71)
SIM12 + SOF12		0.96 (0.61 to 1.07)	–3.52 (–37.45 to 6.02)
SOF12 + SIM12 + RBV12		0.98 (0.42 to 1.09)	–1.95 (–55.37 to 7.77)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.95 to 1.33)	0.44 (–4.70 to 23.17)
SOF24 + LDV24 + RBV24		1.02 (0.93 to 1.36)	1.89 (–6.61 to 25.50)
T12 PR48 q8		0.80 (0.66 to 1.06)	–19.11 (–32.79 to 4.60)
SIM12 PR24-48 RGT		0.75 (0.57 to 1.02)	–23.51 (–41.25 to 1.57)
SIM12 PR48		0.78 (0.64 to 1.04)	–20.34 (–34.46 to 2.89)
B32 PR36-48 RGT		0.69 (0.48 to 0.97)	–29.23 (–49.36 to –2.51)
SOF12 + RBV12		0.19 (0.02 to 0.62)	–74.29 (–93.54 to –33.47)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.65 to 1.32)	1.02 (–32.41 to 23.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.95 to 1.37)	1.98 (–4.56 to 25.80)
DCV24 + ASU24		0.85 (0.70 to 1.12)	–14.46 (–28.77 to 8.63)
DCV24 + ASU24 + PR24		0.97 (0.85 to 1.28)	–2.85 (–14.07 to 19.93)
SIM12 PR24-48 RGT or SIM12 PR48		0.78 (0.50 to 1.06)	–20.89 (–47.34 to 4.30)
SOF12 + PR12		0.86 (0.64 to 1.15)	–13.64 (–34.08 to 10.61)
SIM12 + SOF12		0.98 (0.62 to 1.29)	–2.34 (–36.26 to 20.69)
SOF12 + SIM12 + RBV12		0.99 (0.45 to 1.30)	–0.89 (–50.18 to 21.65)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.94 to 1.07)	1.60 (–6.11 to 6.47)
T12 PR48 q8		0.79 (0.65 to 0.89)	–20.36 (–32.90 to –10.41)
SIM12 PR24-48 RGT		0.74 (0.56 to 0.88)	–24.84 (–41.96 to –11.66)
SIM12 PR48		0.77 (0.64 to 0.88)	–21.52 (–34.43 to –11.58)
B32 PR36-48 RGT		0.67 (0.47 to 0.85)	–30.98 (–50.22 to –14.13)
SOF12 + RBV12		0.19 (0.02 to 0.59)	–77.11 (–92.89 to –39.16)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.63 to 1.07)	0.85 (–34.48 to 6.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.96 to 1.07)	1.62 (–3.82 to 6.30)
DCV24 + ASU24		0.83 (0.70 to 0.92)	–15.75 (–28.25 to –7.67)
DCV24 + ASU24 + PR24		0.96 (0.85 to 1.02)	–3.58 (–14.00 to 2.26)
SIM12 PR24-48 RGT or SIM12 PR48		0.76 (0.49 to 0.93)	–22.80 (–48.34 to –6.28)
SOF12 + PR12		0.84 (0.64 to 0.96)	–15.02 (–34.55 to –3.41)
SIM12 + SOF12		0.97 (0.62 to 1.05)	–3.26 (–36.33 to 4.92)
SOF12 + SIM12 + RBV12		0.98 (0.42 to 1.07)	–1.59 (–54.08 to 6.23)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.77 (0.65 to 0.89)	–21.73 (–34.42 to –9.95)
SIM12 PR24-48 RGT		0.73 (0.55 to 0.87)	–26.25 (–43.19 to –11.67)

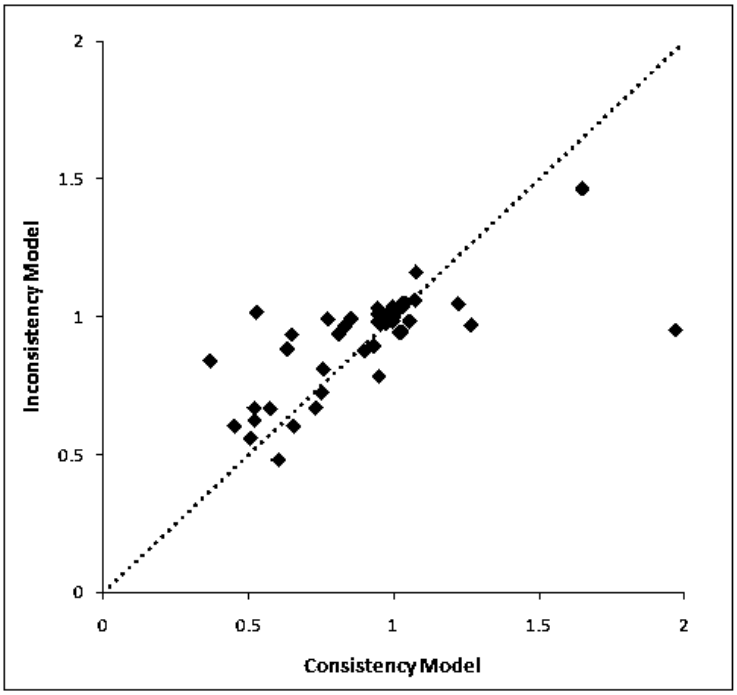
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR48		0.76 (0.63 to 0.88)	–22.96 (–36.32 to –10.87)
B32 PR36-48 RGT		0.66 (0.47 to 0.84)	–32.33 (–51.41 to –14.51)
SOF12 + RBV12		0.19 (0.02 to 0.58)	–78.06 (–94.88 to –39.96)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.62 to 1.09)	–0.83 (–36.19 to 7.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.95 to 1.09)	–0.04 (–5.29 to 7.94)
DCV24 + ASU24		0.82 (0.69 to 0.93)	–17.23 (–30.12 to –6.32)
DCV24 + ASU24 + PR24		0.95 (0.84 to 1.04)	–5.22 (–15.88 to 3.78)
SIM12 PR24-48 RGT or SIM12 PR48		0.75 (0.48 to 0.93)	–24.26 (–49.91 to –6.39)
SOF12 + PR12		0.83 (0.63 to 0.96)	–16.32 (–35.93 to –3.52)
SIM12 + SOF12		0.95 (0.60 to 1.06)	–4.72 (–38.40 to 5.44)
SOF12 + SIM12 + RBV12		0.97 (0.42 to 1.08)	–3.00 (–56.50 to 6.83)
SIM12 PR24-48 RGT	T12 PR48 q8	0.94 (0.70 to 1.20)	–4.42 (–23.79 to 12.96)
SIM12 PR48		0.98 (0.84 to 1.13)	–1.14 (–11.97 to 8.86)
B32 PR36-48 RGT		0.86 (0.59 to 1.15)	–10.49 (–31.76 to 10.15)
SOF12 + RBV12		0.24 (0.03 to 0.74)	–55.88 (–74.59 to –19.12)
PAR/RIT12 + OMB12 + DAS12		1.27 (0.81 to 1.55)	20.05 (–14.64 to 34.55)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.29 (1.14 to 1.56)	21.90 (11.48 to 34.66)
DCV24 + ASU24		1.06 (0.86 to 1.30)	4.52 (–11.39 to 19.36)
DCV24 + ASU24 + PR24		1.22 (1.06 to 1.45)	16.35 (5.10 to 28.26)
SIM12 PR24-48 RGT or SIM12 PR48		0.97 (0.64 to 1.21)	–2.37 (–26.58 to 14.60)
SOF12 + PR12		1.07 (0.78 to 1.33)	5.45 (–17.18 to 21.66)
SIM12 + SOF12		1.22 (0.78 to 1.48)	16.47 (–16.63 to 31.00)
SOF12 + SIM12 + RBV12		1.23 (0.54 to 1.51)	17.75 (–34.79 to 32.55)
SIM12 PR48	SIM12 PR24-48 RGT	1.05 (0.81 to 1.42)	3.24 (–14.71 to 22.88)
B32 PR36-48 RGT		0.92 (0.62 to 1.31)	–5.91 (–28.63 to 17.56)
SOF12 + RBV12		0.26 (0.03 to 0.82)	–51.04 (–73.37 to –11.11)
PAR/RIT12 + OMB12 + DAS12		1.34 (0.84 to 1.79)	24.31 (–11.46 to 42.75)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.38 (1.16 to 1.82)	26.51 (13.09 to 43.33)
DCV24 + ASU24		1.13 (0.88 to 1.50)	9.01 (–9.58 to 27.52)
DCV24 + ASU24 + PR24		1.30 (1.06 to 1.72)	20.97 (4.78 to 38.50)
SIM12 PR24-48 RGT or SIM12 PR48		1.03 (0.65 to 1.45)	1.97 (–26.38 to 25.49)
SOF12 + PR12		1.14 (0.83 to 1.54)	9.81 (–13.35 to 29.65)
SIM12 + SOF12		1.29 (0.83 to 1.72)	20.51 (–11.96 to 39.47)
SOF12 + SIM12 + RBV12		1.31 (0.57 to 1.75)	21.90 (–30.08 to 41.14)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B32 PR36-48 RGT	SIM12 PR48	0.87 (0.60 to 1.19)	–9.28 (–30.57 to 12.01)
SOF12 + RBV12		0.24 (0.03 to 0.74)	–54.32 (–73.09 to –19.26)
PAR/RIT12 + OMB12 + DAS12		1.28 (0.83 to 1.60)	21.17 (–12.37 to 36.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.32 (1.15 to 1.60)	23.14 (12.49 to 36.50)
DCV24 + ASU24		1.08 (0.87 to 1.33)	5.71 (–10.05 to 20.58)
DCV24 + ASU24 + PR24		1.24 (1.11 to 1.46)	17.55 (8.47 to 28.21)
SIM12 PR24-48 RGT or SIM12 PR48		0.98 (0.68 to 1.20)	–1.25 (–22.57 to 13.88)
SOF12 + PR12		1.09 (0.79 to 1.37)	6.70 (–16.23 to 23.28)
SIM12 + SOF12		1.24 (0.80 to 1.52)	17.68 (–15.49 to 32.63)
SOF12 + SIM12 + RBV12		1.25 (0.54 to 1.56)	18.89 (–33.69 to 34.54)
SOF12 + RBV12	B32 PR36-48 RGT	0.28 (0.03 to 0.93)	–45.01 (–69.56 to –4.14)
PAR/RIT12 + OMB12 + DAS12		1.46 (0.93 to 2.11)	29.88 (–5.03 to 50.82)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.51 (1.20 to 2.15)	32.50 (15.57 to 51.46)
DCV24 + ASU24		1.23 (0.92 to 1.78)	15.00 (–6.18 to 35.88)
DCV24 + ASU24 + PR24		1.42 (1.10 to 2.04)	26.84 (7.83 to 47.15)
SIM12 PR24-48 RGT or SIM12 PR48		1.12 (0.69 to 1.68)	7.86 (–21.92 to 33.02)
SOF12 + PR12		1.24 (0.86 to 1.80)	15.66 (–10.05 to 37.49)
SIM12 + SOF12		1.41 (0.87 to 2.03)	26.48 (–9.50 to 47.85)
SOF12 + SIM12 + RBV12		1.42 (0.61 to 2.07)	27.38 (–26.46 to 49.70)
PAR/RIT12 + OMB12 + DAS12	SOF12 + RBV12	5.18 (1.62 to 43.41)	74.60 (30.97 to 94.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.42 (1.73 to 45.65)	78.60 (40.52 to 94.54)
DCV24 + ASU24		4.41 (1.40 to 38.30)	60.47 (21.73 to 79.69)
DCV24 + ASU24 + PR24		5.08 (1.65 to 43.04)	72.41 (35.41 to 90.03)
SIM12 PR24-48 RGT or SIM12 PR48		3.96 (1.26 to 33.29)	52.12 (12.90 to 76.83)
SOF12 + PR12		4.44 (1.37 to 38.06)	60.60 (19.37 to 83.10)
SIM12 + SOF12		4.96 (1.52 to 42.57)	70.55 (25.62 to 92.52)
SOF12 + SIM12 + RBV12		4.92 (1.37 to 43.00)	71.77 (13.92 to 93.99)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.94 to 1.61)	0.71 (–5.68 to 36.30)
DCV24 + ASU24		0.84 (0.69 to 1.32)	–15.64 (–29.53 to 19.22)
DCV24 + ASU24 + PR24		0.96 (0.84 to 1.50)	–3.89 (–15.52 to 29.74)
SIM12 PR24-48 RGT or SIM12 PR48		0.77 (0.49 to 1.22)	–21.86 (–49.43 to 13.64)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.85 (0.63 to 1.34)	–14.52 (–35.28 to 20.90)
SIM12 + SOF12		0.96 (0.62 to 1.49)	–3.38 (–35.82 to 30.67)
SOF12 + SIM12 + RBV12		0.98 (0.42 to 1.50)	–1.93 (–55.18 to 30.85)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.82 (0.68 to 0.92)	–17.34 (–30.78 to –7.78)
DCV24 + ASU24 + PR24		0.95 (0.83 to 1.02)	–5.21 (–16.17 to 1.51)
SIM12 PR24-48 RGT or SIM12 PR48		0.75 (0.48 to 0.92)	–24.31 (–50.11 to –7.54)
SOF12 + PR12		0.83 (0.62 to 0.95)	–16.48 (–36.36 to –4.75)
SIM12 + SOF12		0.95 (0.61 to 1.04)	–4.84 (–37.73 to 3.28)
SOF12 + SIM12 + RBV12		0.97 (0.42 to 1.05)	–3.23 (–56.19 to 4.56)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.15 (0.99 to 1.38)	11.88 (–0.72 to 25.84)
SIM12 PR24-48 RGT or SIM12 PR48		0.91 (0.59 to 1.20)	–6.96 (–33.38 to 13.86)
SOF12 + PR12		1.01 (0.76 to 1.26)	0.71 (–19.61 to 17.55)
SIM12 + SOF12		1.15 (0.73 to 1.39)	12.02 (–21.84 to 26.89)
SOF12 + SIM12 + RBV12		1.16 (0.52 to 1.42)	13.12 (–37.35 to 28.73)
SIM12 PR24-48 RGT or SIM12 PR48	DCV24 + ASU24 + PR24	0.79 (0.52 to 0.97)	–18.85 (–42.93 to –2.44)
SOF12 + PR12		0.88 (0.66 to 1.04)	–10.88 (–31.66 to 3.25)
SIM12 + SOF12		1.01 (0.64 to 1.15)	0.48 (–33.13 to 12.62)
SOF12 + SIM12 + RBV12		1.02 (0.44 to 1.18)	1.96 (–51.01 to 14.69)
SOF12 + PR12	SIM12 PR24-48 RGT or SIM12 PR48	1.11 (0.77 to 1.74)	7.79 (–18.89 to 35.18)
SIM12 + SOF12		1.25 (0.78 to 1.95)	18.16 (–17.05 to 45.20)
SOF12 + SIM12 + RBV12		1.26 (0.56 to 2.00)	19.22 (–31.53 to 47.32)
SIM12 + SOF12	SOF12 + PR12	1.13 (0.78 to 1.42)	10.68 (–16.51 to 26.91)
SOF12 + SIM12 + RBV12		1.14 (0.56 to 1.48)	11.79 (–31.99 to 30.75)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	1.01 (0.58 to 1.29)	1.10 (–31.97 to 19.60)
Random effect model	Residual deviance	49.23 vs. 54 data points	
	Deviance information criteria	285.992	
Fixed effect model	Residual deviance	49.08 vs. 54 data points	
	Deviance information criteria	284.484	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 34: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Genotype 1a

TABLE 102: SVR GENOTYPE 1A TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	2.12 (0.94 to 3.08)	29.36 (–1.65 to 49.28)
SIM12 PR24-48 RGT		2.52 (1.38 to 3.49)	39.83 (9.98 to 58.41)
SIM12 PR48		2.14 (0.71 to 3.26)	29.87 (–7.56 to 53.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.72 (2.97 to 4.62)	71.23 (58.63 to 76.94)
DCV24 + ASU24 + PR24		3.18 (1.85 to 4.12)	57.79 (22.37 to 70.21)
SIM12 PR24-48 RGT or SIM12 PR48		2.91 (1.12 to 3.93)	50.60 (2.98 to 67.65)
B32 PR36-48 RGT		2.00 (0.94 to 3.22)	26.24 (–1.71 to 52.09)
SOF12 + PR12		3.02 (1.80 to 3.97)	53.38 (21.52 to 67.20)
SIM12 + SOF12		3.51 (2.08 to 4.46)	66.76 (29.35 to 75.36)
SOF12 + LDV12		3.56 (2.79 to 4.46)	67.38 (50.96 to 74.76)
SOF24 + LDV24		3.21 (0.62 to 4.34)	59.33 (–9.94 to 74.69)
SOF12 + LDV12 + RBV12		3.61 (2.92 to 4.50)	68.22 (57.61 to 74.89)
SOF24 + LDV24 + RBV24		3.74 (3.05 to 4.66)	71.63 (62.62 to 77.50)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	T12 PR48 q8	1.19 (0.67 to 2.58)	10.57 (–21.32 to 44.25)
SIM12 PR48		1.01 (0.53 to 1.50)	0.56 (–21.30 to 20.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.75 (1.32 to 3.53)	41.70 (23.12 to 64.87)
DCV24 + ASU24 + PR24		1.50 (0.89 to 3.15)	27.68 (–6.48 to 58.23)
SIM12 PR24-48 RGT or SIM12 PR48		1.35 (0.76 to 2.28)	19.85 (–10.97 to 42.95)
B32 PR36-48 RGT		0.95 (0.45 to 2.25)	–2.71 (–35.61 to 36.42)
SOF12 + PR12		1.42 (0.86 to 3.01)	23.22 (–8.91 to 54.12)
SIM12 + SOF12		1.64 (1.00 to 3.42)	35.87 (0.22 to 64.83)
SOF12 + LDV12		1.68 (1.20 to 3.61)	37.59 (14.15 to 66.27)
SOF24 + LDV24		1.49 (0.30 to 3.17)	28.50 (–40.32 to 61.49)
SOF12 + LDV12 + RBV12		1.69 (1.24 to 3.78)	38.62 (17.53 to 67.86)
SOF24 + LDV24 + RBV24		1.76 (1.29 to 3.94)	42.09 (21.56 to 71.57)
SIM12 PR48	SIM12 PR24-48 RGT	0.85 (0.30 to 1.55)	–9.76 (–48.78 to 24.50)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.47 (1.12 to 2.60)	31.16 (9.98 to 58.40)
DCV24 + ASU24 + PR24		1.25 (0.94 to 1.77)	16.86 (–3.86 to 33.89)
SIM12 PR24-48 RGT or SIM12 PR48		1.15 (0.48 to 1.98)	10.34 (–35.63 to 40.91)
B32 PR36-48 RGT		0.80 (0.38 to 1.60)	–13.08 (–46.15 to 25.30)
SOF12 + PR12		1.19 (0.73 to 2.10)	12.94 (–19.84 to 43.10)
SIM12 + SOF12		1.38 (0.85 to 2.39)	25.57 (–10.87 to 53.53)
SOF12 + LDV12		1.41 (1.05 to 2.49)	27.21 (4.05 to 55.08)
SOF24 + LDV24		1.26 (0.25 to 2.28)	18.01 (–51.29 to 50.88)
SOF12 + LDV12 + RBV12		1.43 (1.09 to 2.57)	28.15 (7.52 to 56.92)
SOF24 + LDV24 + RBV24		1.48 (1.15 to 2.67)	31.55 (12.06 to 60.12)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 PR48	1.73 (1.22 to 4.79)	41.02 (17.59 to 72.74)
DCV24 + ASU24 + PR24		1.48 (0.86 to 4.04)	26.89 (–9.50 to 63.18)
SIM12 PR24-48 RGT or SIM12 PR48		1.34 (0.93 to 2.34)	18.88 (–2.91 to 38.90)
B32 PR36-48 RGT		0.94 (0.44 to 2.91)	–3.13 (–38.78 to 40.99)
SOF12 + PR12		1.40 (0.83 to 3.87)	22.65 (–11.68 to 58.92)
SIM12 + SOF12		1.62 (0.97 to 4.44)	35.20 (–1.68 to 70.48)
SOF12 + LDV12		1.66 (1.14 to 4.78)	37.06 (10.44 to 72.05)
SOF24 + LDV24		1.46 (0.30 to 4.11)	26.96 (–41.74 to 66.63)
SOF12 + LDV12 + RBV12		1.68 (1.17 to 4.95)	38.13 (13.39 to 73.44)
SOF24 + LDV24 + RBV24		1.74 (1.22 to 5.13)	41.53 (17.10 to 77.35)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.86 (0.52 to 1.01)	–13.26 (–45.81 to 1.18)
SIM12 PR24-48 RGT or SIM12 PR48		0.79 (0.33 to 0.96)	–20.37 (–61.69 to –3.70)
B32 PR36-48 RGT		0.54 (0.26 to 0.82)	–44.48 (–70.65 to –16.22)
SOF12 + PR12		0.82 (0.51 to 0.98)	–17.68 (–45.98 to –2.23)
SIM12 + SOF12		0.96 (0.59 to 1.07)	–4.16 (–38.62 to 6.42)
SOF12 + LDV12		0.96 (0.82 to 1.08)	–3.56 (–17.86 to 6.83)
SOF24 + LDV24		0.88 (0.17 to 1.05)	–11.28 (–80.55 to 4.28)
SOF12 + LDV12 + RBV12		0.97 (0.88 to 1.09)	–2.89 (–11.62 to 8.02)
SOF24 + LDV24 + RBV24		1.01 (0.93 to 1.13)	0.46 (–7.04 to 11.28)
SIM12 PR24-48 RGT or SIM12 PR48	DCV24 + ASU24 + PR24	0.92 (0.39 to 1.48)	–6.65 (–50.25 to 26.00)
B32 PR36-48 RGT		0.64 (0.31 to 1.20)	–30.30 (–59.82 to 10.72)
SOF12 + PR12		0.95 (0.61 to 1.56)	–4.26 (–33.95 to 28.53)
SIM12 + SOF12		1.10 (0.69 to 1.77)	8.21 (–25.74 to 39.38)
SOF12 + LDV12		1.11 (0.91 to 1.85)	9.56 (–8.37 to 41.81)
SOF24 + LDV24		1.02 (0.20 to 1.70)	1.80 (–67.68 to 37.17)
SOF12 + LDV12 + RBV12		1.12 (0.96 to 1.89)	10.34 (–3.81 to 43.87)
SOF24 + LDV24 + RBV24		1.16 (1.01 to 1.97)	13.62 (0.80 to 47.36)
B32 PR36-48 RGT	SIM12 PR24-48 RGT or SIM12 PR48	0.70 (0.34 to 1.85)	–22.84 (–54.88 to 26.86)
SOF12 + PR12		1.04 (0.66 to 2.48)	2.72 (–28.70 to 46.08)
SIM12 + SOF12		1.19 (0.76 to 2.85)	15.06 (–19.44 to 57.99)
SOF12 + LDV12		1.21 (0.95 to 3.03)	16.47 (–4.56 to 60.48)
SOF24 + LDV24		1.10 (0.23 to 2.64)	7.90 (–61.19 to 53.41)
SOF12 + LDV12 + RBV12		1.23 (0.99 to 3.13)	17.33 (–0.76 to 62.42)
SOF24 + LDV24 + RBV24		1.27 (1.04 to 3.27)	20.81 (3.27 to 66.48)
SOF12 + PR12	B32 PR36-48 RGT	1.49 (0.81 to 3.12)	25.92 (–12.80 to 56.97)
SIM12 + SOF12		1.73 (0.95 to 3.54)	38.65 (–3.49 to 67.20)
SOF12 + LDV12		1.77 (1.15 to 3.65)	40.36 (10.86 to 67.77)
SOF24 + LDV24		1.54 (0.31 to 3.31)	30.09 (–40.01 to 63.83)
SOF12 + LDV12 + RBV12		1.79 (1.19 to 3.75)	41.64 (14.60 to 68.92)
SOF24 + LDV24 + RBV24		1.86 (1.24 to 3.88)	45.03 (18.51 to 72.07)
SIM12 + SOF12	SOF12 + PR12	1.15 (0.84 to 1.61)	12.08 (–11.52 to 33.31)
SOF12 + LDV12		1.17 (0.95 to 1.88)	13.79 (–4.39 to 43.00)
SOF24 + LDV24		1.07 (0.21 to 1.70)	5.67 (–63.41 to 37.60)
SOF12 + LDV12 + RBV12		1.18 (0.99 to 1.94)	14.67 (–0.67 to 44.82)
SOF24 + LDV24 + RBV24		1.23 (1.05 to 1.99)	18.16 (4.13 to 47.96)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	SIM12 + SOF12	1.01 (0.84 to 1.64)	0.65 (–14.67 to 35.95)
SOF24 + LDV24		0.93 (0.18 to 1.49)	–6.44 (–75.11 to 30.00)
SOF12 + LDV12 + RBV12		1.01 (0.90 to 1.67)	1.33 (–9.38 to 37.34)
SOF24 + LDV24 + RBV24		1.05 (0.95 to 1.72)	4.61 (–4.55 to 40.30)
SOF24 + LDV24	SOF12 + LDV12	0.92 (0.18 to 1.14)	–7.54 (–75.57 to 11.68)
SOF12 + LDV12 + RBV12		1.01 (0.92 to 1.18)	0.71 (–7.60 to 14.47)
SOF24 + LDV24 + RBV24		1.04 (0.97 to 1.24)	3.94 (–3.00 to 18.52)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.10 (0.94 to 5.74)	8.60 (–5.99 to 76.13)
SOF24 + LDV24 + RBV24		1.14 (0.96 to 6.01)	11.85 (–3.48 to 80.27)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.03 (0.96 to 1.14)	3.26 (–4.15 to 11.91)
Random effect model	Residual deviance	25.34 vs. 26 data points	
	Deviance information criteria	152.687	
Fixed effect model	Residual deviance	25.33 vs. 26 data points	
	Deviance information criteria	152.52	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 1b

TABLE 103: SVR GENOTYPE 1B TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	3.30 (2.02 to 4.38)	52.30 (23.26 to 68.96)
SOF24 + LDV24		3.97 (1.77 to 5.02)	69.04 (17.69 to 78.12)
SOF12 + LDV12 + RBV12		4.05 (3.32 to 4.94)	68.95 (58.45 to 75.73)
SOF24 + LDV24 + RBV24		3.87 (2.60 to 4.88)	65.84 (37.03 to 76.94)
T12 PR48 q8		3.70 (2.79 to 4.70)	61.42 (43.68 to 72.24)
SIM12 PR24-48 RGT		3.01 (2.06 to 3.89)	45.59 (24.30 to 59.84)
SIM12 PR48		3.60 (2.45 to 4.64)	59.20 (34.15 to 72.07)
PAR/RIT12 + OMB12 + DAS12		4.22 (3.43 to 5.14)	73.28 (58.60 to 79.10)
DCV24 + ASU24		3.43 (2.66 to 4.34)	55.01 (40.42 to 65.95)
DCV24 + ASU24 + PR24		4.40 (3.71 to 5.32)	76.62 (72.14 to 80.68)
SIM12 PR24-48 RGT or SIM12 PR48		3.68 (1.32 to 4.87)	61.32 (7.31 to 77.10)
B32 PR36-48 RGT		2.87 (1.75 to 4.00)	42.13 (17.46 to 61.83)

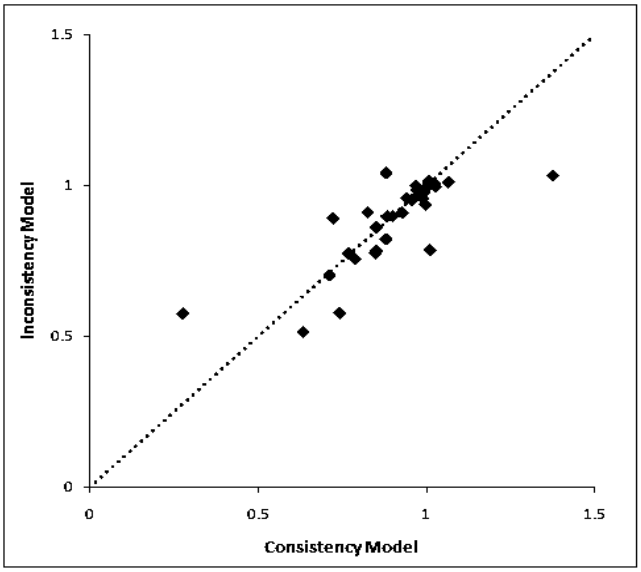
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 PR12		3.26 (1.70 to 4.52)	51.25 (16.25 to 72.01)
SOF24 + LDV24	SOF12 + LDV12	1.18 (0.56 to 1.95)	14.12 (–32.81 to 45.57)
SOF12 + LDV12 + RBV12		1.22 (0.99 to 1.98)	16.27 (–1.01 to 45.35)
SOF24 + LDV24 + RBV24		1.17 (0.78 to 1.89)	12.73 (–18.07 to 42.79)
T12 PR48 q8		1.12 (0.82 to 1.85)	8.80 (–15.20 to 39.30)
SIM12 PR24-48 RGT		0.91 (0.60 to 1.54)	–6.78 (–34.08 to 25.50)
SIM12 PR48		1.09 (0.73 to 1.81)	6.57 (–22.61 to 38.00)
PAR/RIT12 + OMB12 + DAS12		1.26 (1.00 to 2.09)	19.88 (0.21 to 50.13)
DCV24 + ASU24		1.03 (0.78 to 1.72)	2.41 (–19.17 to 33.80)
DCV24 + ASU24 + PR24		1.32 (1.08 to 2.17)	24.11 (7.73 to 53.34)
SIM12 PR24-48 RGT or SIM12 PR48		1.09 (0.43 to 1.87)	7.29 (–44.01 to 42.13)
B32 PR36-48 RGT		0.87 (0.52 to 1.51)	–9.87 (–40.26 to 25.14)
SOF12 PR12		0.99 (0.50 to 1.73)	–0.69 (–40.48 to 36.47)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.00 (0.90 to 2.15)	0.33 (–9.99 to 46.41)
SOF24 + LDV24 + RBV24		0.98 (0.66 to 2.15)	–2.00 (–32.30 to 47.15)
T12 PR48 q8		0.93 (0.72 to 2.06)	–6.54 (–26.76 to 43.66)
SIM12 PR24-48 RGT		0.76 (0.52 to 1.69)	–21.89 (–45.83 to 28.66)
SIM12 PR48		0.91 (0.63 to 1.98)	–8.41 (–34.40 to 40.70)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.88 to 2.33)	4.16 (–12.00 to 54.48)
DCV24 + ASU24		0.86 (0.69 to 1.84)	–12.58 (–29.63 to 34.29)
DCV24 + ASU24 + PR24		1.08 (1.00 to 2.44)	7.30 (–0.24 to 58.41)
SIM12 PR24-48 RGT or SIM12 PR48		0.94 (0.35 to 1.92)	–5.41 (–58.45 to 40.70)
B32 PR36-48 RGT		0.73 (0.44 to 1.70)	–24.81 (–52.86 to 29.20)
SOF12 + PR12		0.83 (0.43 to 1.86)	–15.23 (–53.11 to 36.96)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.97 (0.66 to 1.14)	–3.03 (–31.65 to 12.12)
T12 PR48 q8		0.92 (0.72 to 1.08)	–7.32 (–25.84 to 6.66)
SIM12 PR24-48 RGT		0.75 (0.51 to 0.93)	–23.08 (–45.19 to –5.92)
SIM12 PR48		0.89 (0.63 to 1.07)	–9.65 (–34.75 to 5.91)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.88 to 1.18)	4.21 (–11.03 to 15.18)
DCV24 + ASU24		0.85 (0.70 to 0.96)	–13.54 (–27.37 to –3.10)
DCV24 + ASU24 + PR24		1.08 (1.02 to 1.22)	7.43 (1.95 to 17.82)
SIM12 PR24-48 RGT or SIM12 PR48		0.92 (0.34 to 1.10)	–7.27 (–59.66 to 8.81)
B32 PR36-48 RGT		0.71 (0.44 to 0.95)	–26.82 (–51.85 to –4.49)
SOF12 PR12		0.81 (0.43 to 1.06)	–17.49 (–52.27 to 5.16)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.95 (0.73 to 1.41)	–4.17 (–24.90 to 24.67)
SIM12 PR24-48 RGT		0.78 (0.53 to 1.19)	–19.62 (–43.76 to 11.64)
SIM12 PR48		0.93 (0.64 to 1.38)	–6.24 (–33.39 to 23.66)
PAR/RIT12 + OMB12 + DAS12		1.08 (0.89 to 1.60)	6.89 (–10.04 to 36.30)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		0.89 (0.69 to 1.32)	–10.10 (–29.09 to 19.32)
DCV24 + ASU24 + PR24		1.12 (1.00 to 1.66)	10.70 (0.09 to 39.39)
SIM12 PR24-48 RGT or SIM12 PR48		0.95 (0.35 to 1.44)	–4.12 (–58.83 to 28.43)
B32 PR36-48 RGT		0.74 (0.46 to 1.16)	–22.59 (–50.66 to 10.61)
SOF12 PR12		0.85 (0.45 to 1.33)	–13.67 (–50.33 to 21.16)
SIM12 PR24-48 RGT	T12 PR48 q8	0.81 (0.55 to 1.10)	–15.58 (–38.80 to 6.83)
SIM12 PR48		0.97 (0.79 to 1.08)	–2.15 (–16.02 to 6.01)
PAR/RIT12 + OMB12 + DAS12		1.14 (0.95 to 1.43)	11.48 (–4.71 to 29.14)
DCV24 + ASU24		0.93 (0.73 to 1.20)	–6.17 (–24.44 to 13.88)
DCV24 + ASU24 + PR24		1.18 (1.06 to 1.49)	15.05 (5.41 to 32.53)
SIM12 PR24-48 RGT or SIM12 PR48		1.00 (0.36 to 1.36)	–0.29 (–54.24 to 25.40)
B32 PR36-48 RGT		0.77 (0.48 to 1.10)	–19.03 (–46.06 to 6.94)
SOF12 PR12		0.88 (0.47 to 1.24)	–9.91 (–46.28 to 17.44)
SIM12 PR48	SIM12 PR24-48 RGT	1.19 (0.81 to 1.76)	13.25 (–14.35 to 37.61)
PAR/RIT12 + OMB12 + DAS12		1.39 (1.16 to 1.94)	26.81 (12.74 to 45.11)
DCV24 + ASU24		1.13 (0.86 to 1.69)	9.21 (–10.77 to 32.90)
DCV24 + ASU24 + PR24		1.45 (1.20 to 2.13)	30.93 (16.45 to 52.64)
SIM12 PR24-48 RGT or SIM12 PR48		1.21 (0.44 to 1.83)	14.94 (–39.39 to 41.97)
B32 PR36-48 RGT		0.95 (0.58 to 1.51)	–3.64 (–31.57 to 25.61)
SOF12 PR12		1.08 (0.57 to 1.70)	5.54 (–30.68 to 35.69)
PAR/RIT12 + OMB12 + DAS12	SIM12 PR48	1.17 (0.96 to 1.65)	13.72 (–3.67 to 37.94)
DCV24 + ASU24		0.95 (0.74 to 1.39)	–3.87 (–23.57 to 22.60)
DCV24 + ASU24 + PR24		1.21 (1.06 to 1.74)	17.24 (5.58 to 42.02)
SIM12 PR24-48 RGT or SIM12 PR48		1.02 (0.37 to 1.53)	1.90 (–52.49 to 32.19)
B32 PR36-48 RGT		0.80 (0.49 to 1.23)	–16.59 (–44.69 to 14.42)
SOF12 PR12		0.91 (0.48 to 1.40)	–7.54 (–44.74 to 24.30)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.81 (0.66 to 0.99)	–17.82 (–32.82 to –1.23)
DCV24 + ASU24 + PR24		1.03 (0.99 to 1.22)	2.88 (–0.94 to 18.17)
SIM12 PR24-48 RGT or SIM12 PR48		0.88 (0.32 to 1.11)	–11.41 (–65.71 to 8.97)
B32 PR36-48 RGT		0.68 (0.42 to 0.92)	–30.62 (–55.59 to –6.80)
SOF12 PR12		0.78 (0.41 to 1.03)	–21.21 (–56.86 to 2.56)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.28 (1.13 to 1.57)	21.47 (11.48 to 35.95)
SIM12 PR24-48 RGT or SIM12 PR48		1.08 (0.39 to 1.41)	6.29 (–47.57 to 27.81)
B32 PR36-48 RGT		0.83 (0.51 to 1.19)	–13.10 (–39.85 to 12.67)
SOF12 PR12		0.95 (0.50 to 1.33)	–3.71 (–40.06 to 22.39)
SIM12 PR24-48 RGT or	DCV24 + ASU24	0.85 (0.30 to 1.00)	–15.14 (–68.78 to –0.09)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR48	+ PR24		
B32 PR36-48 RGT		0.65 (0.41 to 0.85)	–34.53 (–58.71 to –15.30)
SOF12 PR12		0.75 (0.40 to 0.95)	–25.13 (–59.80 to –5.07)
B32 PR36-48 RGT	SIM12 PR24-48 RGT or SIM12 PR48	0.79 (0.47 to 2.11)	–17.51 (–49.55 to 35.41)
SOF12 PR12		0.90 (0.47 to 2.48)	–8.53 (–48.27 to 47.19)
SOF12 PR12	B32 PR36-48 RGT	1.14 (0.58 to 1.97)	8.91 (–30.97 to 42.36)
Random effect model	Residual deviance	30.0 vs. 34 data points	
	Deviance information criteria	174.47	
Fixed effect model	Residual deviance	29.82 vs. 34 data points	
	Deviance information criteria	173.87	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 35: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1B TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Cirrhotic

TABLE 104: SVR GENOTYPE 1 CIRRHOTIC TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

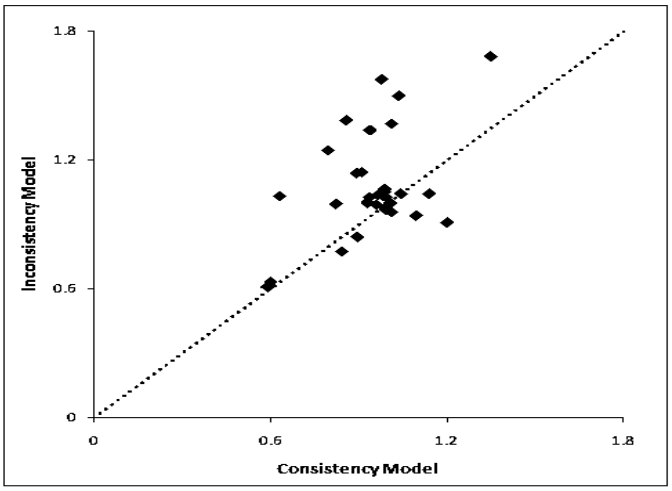
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	4.31 (2.45 to 6.85)	57.01 (26.60 to 75.98)
SOF24 + LDV24		4.50 (1.60 to 7.22)	61.40 (10.41 to 81.09)
SOF12 + LDV12 + RBV12		4.63 (2.93 to 7.01)	62.08 (38.75 to 76.65)
SOF24 + LDV24 + RBV24		5.29 (3.22 to 7.90)	74.37 (42.60 to 84.52)
T12 PR48 q8		3.03 (1.36 to 5.43)	34.75 (6.55 to 63.32)
SIM12 PR24-48 RGT		3.56 (1.61 to 6.09)	44.10 (10.50 to 69.79)
SIM12 PR48		2.71 (0.89 to 5.32)	29.31 (–1.87 to 63.33)
B32 PR36-48 RGT		2.52 (0.71 to 5.62)	25.97 (–5.54 to 63.17)
DCV24 + ASU24		5.06 (3.12 to 7.65)	69.98 (41.09 to 82.16)
DCV24 + ASU24 + PR24		5.35 (3.73 to 7.80)	74.30 (56.27 to 83.06)
SIM12 + SOF12		4.67 (1.80 to 7.16)	64.69 (13.84 to 82.30)
SOF12 + SIM12 + RBV12		4.57 (1.87 to 7.23)	62.63 (14.93 to 82.28)
SOF12 + PR12		2.94 (0.32 to 6.24)	33.13 (–11.47 to 77.06)
SOF24 + LDV24	SOF12 + LDV12	1.04 (0.42 to 1.71)	3.15 (–43.40 to 35.62)
SOF12 + LDV12 + RBV12		1.06 (0.80 to 1.66)	4.42 (–15.66 to 31.18)
SOF24 + LDV24 + RBV24		1.20 (0.85 to 1.96)	15.17 (–11.25 to 44.21)
T12 PR48 q8		0.70 (0.30 to 1.39)	–21.92 (–58.37 to 19.60)
SIM12 PR24-48 RGT		0.83 (0.36 to 1.58)	–12.43 (–52.74 to 27.79)
SIM12 PR48		0.63 (0.20 to 1.37)	–27.28 (–65.97 to 19.02)
B32 PR36-48 RGT		0.59 (0.19 to 1.22)	–29.93 (–64.65 to 12.32)
DCV24 + ASU24		1.15 (0.83 to 1.91)	11.37 (–13.72 to 41.46)
DCV24 + ASU24 + PR24		1.22 (0.90 to 2.10)	16.58 (–8.45 to 48.43)
SIM12 + SOF12		1.09 (0.41 to 1.92)	7.23 (–47.92 to 42.66)
SOF12 + SIM12 + RBV12		1.07 (0.41 to 1.86)	5.26 (–46.35 to 41.22)
SOF12 + PR12		0.70 (0.07 to 1.60)	–21.85 (–74.89 to 31.08)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.76 to 2.61)	0.94 (–20.98 to 45.04)
SOF24 + LDV24 + RBV24		1.14 (0.76 to 3.17)	11.37 (–20.83 to 60.68)
T12 PR48 q8		0.68 (0.29 to 2.06)	–24.59 (–63.23 to 32.63)
SIM12 PR24-48 RGT		0.81 (0.35 to 2.28)	–15.37 (–57.10 to 39.04)
SIM12 PR48		0.62 (0.19 to 1.93)	–29.81 (–71.12 to 29.87)
B32 PR36-48 RGT		0.58 (0.18 to 1.61)	–31.94 (–72.29 to 20.65)
DCV24 + ASU24		1.10 (0.77 to 2.93)	7.65 (–19.69 to 55.20)
DCV24 + ASU24 + PR24		1.16 (0.85 to 3.27)	12.21 (–14.01 to 63.49)
SIM12 + SOF12		1.03 (0.41 to 2.85)	2.60 (–50.11 to 55.80)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.02 (0.40 to 2.72)	1.32 (–52.12 to 52.81)
SOF12 + PR12		0.68 (0.07 to 2.11)	–23.92 (–80.51 to 41.53)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.13 (0.80 to 1.54)	10.61 (–16.19 to 32.49)
T12 PR48 q8		0.66 (0.29 to 1.16)	–26.70 (–60.26 to 10.33)
SIM12 PR24-48 RGT		0.78 (0.34 to 1.28)	–17.28 (–55.36 to 17.19)
SIM12 PR48		0.59 (0.19 to 1.15)	–32.37 (–68.15 to 9.47)
B32 PR36-48 RGT		0.55 (0.18 to 1.02)	–34.99 (–66.13 to 1.56)
DCV24 + ASU24		1.09 (0.83 to 1.40)	7.33 (–13.20 to 24.67)
DCV24 + ASU24 + PR24		1.15 (0.88 to 1.62)	11.71 (–10.89 to 35.72)
SIM12 + SOF12		1.03 (0.39 to 1.52)	2.26 (–50.21 to 31.91)
SOF12 + SIM12 + RBV12		1.01 (0.39 to 1.51)	0.63 (–50.50 to 30.78)
SOF12 + PR12		0.65 (0.07 to 1.32)	–27.58 (–77.85 to 21.29)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.58 (0.26 to 1.04)	–37.55 (–69.34 to 2.52)
SIM12 PR24-48 RGT		0.69 (0.31 to 1.16)	–28.35 (–64.94 to 10.48)
SIM12 PR48		0.52 (0.17 to 1.01)	–42.78 (–77.90 to 0.69)
B32 PR36-48 RGT		0.48 (0.16 to 0.93)	–46.10 (–77.94 to –5.26)
DCV24 + ASU24		0.96 (0.69 to 1.38)	–3.80 (–28.60 to 24.18)
DCV24 + ASU24 + PR24		1.00 (0.79 to 1.51)	0.02 (–19.53 to 31.10)
SIM12 + SOF12		0.90 (0.35 to 1.42)	–8.99 (–60.32 to 27.20)
SOF12 + SIM12 + RBV12		0.89 (0.35 to 1.35)	–9.60 (–60.43 to 22.88)
SOF12 + PR12		0.56 (0.06 to 1.23)	–38.88 (–87.65 to 16.09)
SIM12 PR24-48 RGT	T12 PR48 q8	1.17 (0.47 to 2.79)	8.80 (–35.12 to 48.94)
SIM12 PR48		0.90 (0.47 to 1.35)	–5.05 (–25.33 to 15.00)
B32 PR36-48 RGT		0.84 (0.22 to 2.42)	–8.41 (–54.20 to 40.49)
DCV24 + ASU24		1.64 (0.93 to 3.76)	33.73 (–5.08 to 67.33)
DCV24 + ASU24 + PR24		1.74 (1.09 to 3.83)	38.48 (6.64 to 68.73)
SIM12 + SOF12		1.51 (0.54 to 3.57)	27.29 (–29.18 to 65.87)
SOF12 + SIM12 + RBV12		1.47 (0.55 to 3.51)	25.49 (–28.77 to 64.80)
SOF12 + PR12		0.97 (0.10 to 2.80)	–1.50 (–57.77 to 53.39)
SIM12 PR48	SIM12 PR24-48 RGT	0.77 (0.24 to 2.05)	–14.28 (–56.57 to 34.07)
B32 PR36-48 RGT		0.71 (0.20 to 2.03)	–17.58 (–60.56 to 34.77)
DCV24 + ASU24		1.39 (0.84 to 3.14)	24.42 (–12.16 to 61.83)
DCV24 + ASU24 + PR24		1.48 (0.99 to 3.26)	29.41 (–0.59 to 64.19)
SIM12 + SOF12		1.29 (0.48 to 2.98)	18.40 (–36.64 to 59.17)
SOF12 + SIM12 + RBV12		1.27 (0.49 to 2.85)	17.14 (–36.22 to 58.05)
SOF12 + PR12		0.84 (0.09 to 2.38)	–9.82 (–65.71 to 47.02)
B32 PR36-48 RGT	SIM12 PR48	0.94 (0.24 to 3.48)	–2.62 (–53.39 to 47.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.84 (0.95 to 5.80)	39.00 (–3.82 to 75.35)
DCV24 + ASU24 + PR24		1.95 (1.09 to 5.94)	44.06 (7.04 to 76.86)
SIM12 + SOF12		1.67 (0.59 to 5.41)	31.99 (–26.17 to 73.59)
SOF12 + SIM12 + RBV12		1.64 (0.58 to 5.32)	30.37 (–26.60 to 72.65)
SOF12 + PR12		1.06 (0.11 to 4.05)	2.83 (–56.57 to 61.48)
DCV24 + ASU24	B32 PR36-48 RGT	1.98 (1.14 to 5.86)	42.10 (9.81 to 72.56)
DCV24 + ASU24 + PR24		2.11 (1.09 to 6.80)	47.78 (6.84 to 79.78)
SIM12 + SOF12		1.81 (0.59 to 6.27)	35.84 (–25.73 to 77.75)
SOF12 + SIM12 + RBV12		1.80 (0.61 to 5.92)	35.06 (–24.17 to 74.76)
SOF12 + PR12		1.14 (0.11 to 5.04)	6.16 (–55.13 to 68.83)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.05 (0.81 to 1.56)	4.11 (–17.22 to 33.18)
SIM12 + SOF12		0.95 (0.36 to 1.44)	–4.50 (–57.15 to 27.44)
SOF12 + SIM12 + RBV12		0.92 (0.36 to 1.41)	–6.56 (–56.58 to 26.11)
SOF12 + PR12		0.59 (0.06 to 1.19)	–34.47 (–84.90 to 13.80)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.90 (0.34 to 1.19)	–8.72 (–60.58 to 14.92)
SOF12 + SIM12 + RBV12		0.88 (0.35 to 1.17)	–10.72 (–60.35 to 13.59)
SOF12 + PR12		0.56 (0.06 to 1.08)	–39.75 (–86.66 to 6.91)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.98 (0.42 to 2.37)	–1.75 (–49.14 to 49.06)
SOF12 + PR12		0.65 (0.12 to 1.03)	–25.62 (–63.07 to 2.04)
SOF12 + PR12	SOF12 + SIM12 + RBV12	0.67 (0.08 to 1.73)	–24.69 (–82.10 to 32.92)
Random effect model	Residual deviance	29.34 vs. 31 data points	
	Deviance information criteria	145.523	
Fixed effect model	Residual deviance	29.3 vs. 31 data points	
	Deviance information criteria	145.001	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 105: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 CIRRHOTIC TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Without Cirrhosis

TABLE 106: SVR GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	1.02 (0.05 to 3.64)	0.60 (–24.98 to 67.29)
SOF12 + LDV12		3.56 (2.99 to 4.15)	66.44 (53.86 to 72.96)
SOF12 + LDV12 + RBV12		3.77 (3.31 to 4.34)	71.42 (66.63 to 75.24)
SOF24 + LDV24 + RBV24		3.77 (3.27 to 4.33)	71.45 (63.16 to 75.83)
T12 PR48 q8		3.04 (2.41 to 3.63)	52.70 (37.64 to 62.06)
SIM12 PR24-48 RGT		2.59 (1.76 to 3.21)	41.00 (19.63 to 53.91)
SIM12 PR48		3.05 (2.15 to 3.72)	52.91 (30.36 to 64.51)
SOF12 + SIM12 + RBV12		2.35 (0.23 to 3.88)	35.02 (–19.56 to 71.05)
B32 PR36-48 RGT		2.55 (1.69 to 3.33)	39.82 (18.37 to 56.86)
SOF12 + RBV12		0.55 (0.04 to 2.04)	–11.42 (–25.62 to 26.31)
PAR/RIT12 + OMB12 + DAS12		3.75 (3.20 to 4.33)	71.27 (60.44 to 75.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.82 (3.35 to 4.39)	72.54 (67.86 to 76.16)
DCV24 + ASU24		3.07 (2.42 to 3.69)	53.54 (38.08 to 63.43)
DCV24 + ASU24 + PR24		3.37 (2.56 to 3.97)	61.54 (40.83 to 69.69)
SOF12 + PR12		3.10 (2.28 to 3.77)	54.19 (34.42 to 65.90)
SOF12 + LDV12	SIM12 + SOF12	3.45 (0.97 to 73.05)	64.56 (–2.44 to 92.89)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12		3.70 (1.04 to 77.25)	70.87 (3.88 to 96.32)
SOF24 + LDV24 + RBV24		3.68 (1.05 to 76.10)	70.44 (4.64 to 96.42)
T12 PR48 q8		2.96 (0.84 to 61.11)	51.21 (–14.76 to 80.29)
SIM12 PR24-48 RGT		2.50 (0.70 to 49.78)	38.72 (–26.46 to 69.87)
SIM12 PR48		2.95 (0.82 to 61.51)	50.73 (–15.70 to 82.01)
SOF12 + SIM12 + RBV12		1.98 (0.77 to 17.15)	21.24 (–11.65 to 62.65)
B32 PR36-48 RGT		2.44 (0.66 to 52.70)	37.15 (–29.73 to 72.89)
SOF12 + RBV12		0.53 (0.03 to 17.93)	–10.42 (–81.33 to 37.62)
PAR/RIT12 + OMB12 + DAS12		3.68 (1.04 to 75.47)	70.08 (3.37 to 96.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.73 (1.06 to 77.60)	71.83 (5.26 to 97.18)
DCV24 + ASU24		2.99 (0.85 to 60.85)	51.66 (–13.62 to 82.04)
DCV24 + ASU24 + PR24		3.25 (0.94 to 65.47)	58.72 (–5.73 to 87.84)
SOF12 + PR12		3.03 (0.84 to 64.10)	52.35 (–14.99 to 83.94)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	1.05 (0.99 to 1.21)	4.90 (–0.96 to 16.60)
SOF24 + LDV24 + RBV24		1.05 (0.96 to 1.21)	4.87 (–3.63 to 16.82)
T12 PR48 q8		0.85 (0.70 to 1.00)	–13.59 (–28.23 to 0.29)
SIM12 PR24-48 RGT		0.73 (0.50 to 0.90)	–25.07 (–46.10 to –8.23)
SIM12 PR48		0.86 (0.62 to 1.03)	–13.23 (–34.85 to 2.51)
SOF12 + SIM12 + RBV12		0.66 (0.06 to 1.08)	–30.71 (–87.60 to 7.14)
B32 PR36–48 RGT		0.72 (0.48 to 0.93)	–26.13 (–48.32 to –5.72)
SOF12 + RBV12		0.16 (0.01 to 0.58)	–77.05 (–93.78 to –37.56)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.93 to 1.21)	4.72 (–6.24 to 17.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.07 (1.00 to 1.23)	5.99 (0.19 to 18.20)
DCV24 + ASU24		0.86 (0.70 to 1.02)	–12.64 (–28.39 to 1.62)
DCV24 + ASU24 + PR24		0.95 (0.73 to 1.11)	–4.76 (–24.95 to 9.19)
SOF12 + PR12		0.87 (0.66 to 1.05)	–11.91 (–31.97 to 4.12)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.92 to 1.05)	0.24 (–7.99 to 4.45)
T12 PR48 q8		0.81 (0.66 to 0.90)	–18.69 (–32.61 to –10.08)
SIM12 PR24-48 RGT		0.69 (0.47 to 0.82)	–30.41 (–51.49 to –17.02)
SIM12 PR48		0.81 (0.58 to 0.92)	–18.43 (–40.20 to –7.33)
SOF12 + SIM12 + RBV12		0.63 (0.06 to 1.00)	–36.22 (–91.00 to –0.16)
B32 PR36-48 RGT		0.67 (0.46 to 0.85)	–31.60 (–52.73 to –14.34)
SOF12 + RBV12		0.15 (0.01 to 0.53)	–82.82 (–96.40 to –45.04)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.89 to 1.05)	0.01 (–10.29 to 4.44)

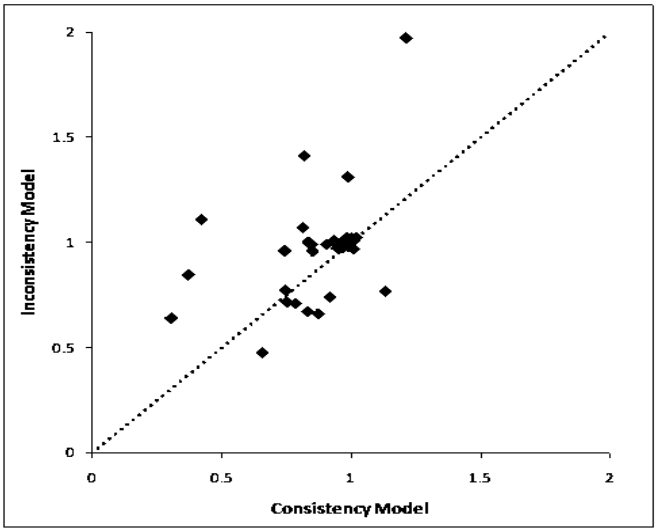
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.98 to 1.05)	1.08 (–2.21 to 4.52)
DCV24 + ASU24		0.82 (0.67 to 0.91)	–17.76 (–32.30 to –8.98)
DCV24 + ASU24 + PR24		0.90 (0.69 to 0.98)	–9.75 (–30.12 to –1.51)
SOF12 + PR12		0.82 (0.63 to 0.94)	–17.15 (–36.52 to –5.48)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.81 (0.66 to 0.93)	–18.59 (–33.08 to –6.85)
SIM12 PR24-48 RGT		0.69 (0.47 to 0.83)	–30.10 (–51.07 to –16.03)
SIM12 PR48		0.81 (0.59 to 0.95)	–18.27 (–39.87 to –4.72)
SOF12 + SIM12 + RBV12		0.63 (0.06 to 1.00)	–35.87 (–90.91 to –0.12)
B32 PR36-48 RGT		0.68 (0.46 to 0.86)	–31.33 (–52.73 to –12.87)
SOF12 + RBV12		0.15 (0.01 to 0.53)	–82.40 (–96.90 to –44.80)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.89 to 1.09)	–0.20 (–10.63 to 8.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.97 to 1.10)	0.83 (–2.81 to 9.04)
DCV24 + ASU24		0.82 (0.66 to 0.94)	–17.67 (–32.98 to –5.90)
DCV24 + ASU24 + PR24		0.90 (0.69 to 1.01)	–9.71 (–29.81 to 0.47)
SOF12 + PR12		0.82 (0.63 to 0.96)	–16.98 (–36.40 to –3.62)
SIM12 PR24-48 RGT	T12 PR48 q8	0.85 (0.59 to 1.10)	–11.53 (–33.09 to 6.68)
SIM12 PR48		1.00 (0.80 to 1.14)	0.29 (–14.68 to 10.08)
SOF12 + SIM12 + RBV12		0.78 (0.08 to 1.28)	–17.17 (–74.27 to 20.29)
B32 PR36-48 RGT		0.84 (0.56 to 1.15)	–12.81 (–35.08 to 10.05)
SOF12 + RBV12		0.18 (0.01 to 0.67)	–63.12 (–81.06 to –24.71)
PAR/RIT12 + OMB12 + DAS12		1.23 (1.07 to 1.51)	18.25 (6.02 to 32.96)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.14 to 1.51)	19.81 (11.94 to 32.53)
DCV24 + ASU24		1.01 (0.84 to 1.21)	0.95 (–13.07 to 14.16)
DCV24 + ASU24 + PR24		1.11 (0.86 to 1.36)	8.74 (–11.43 to 23.99)
SOF12 + PR12		1.02 (0.77 to 1.30)	1.57 (–19.02 to 19.85)
SIM12 PR48	SIM12 PR24-48 RGT	1.17 (0.84 to 1.71)	11.68 (–11.44 to 34.45)
SOF12 + SIM12 + RBV12		0.91 (0.09 to 1.57)	–5.82 (–59.43 to 32.77)
B32 PR36-48 RGT		0.98 (0.66 to 1.54)	–1.22 (–24.63 to 26.22)
SOF12 + RBV12		0.22 (0.02 to 0.83)	–51.16 (–73.02 to –10.26)
PAR/RIT12 + OMB12 + DAS12		1.45 (1.22 to 2.06)	29.69 (17.12 to 48.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.47 (1.23 to 2.15)	31.44 (18.41 to 52.06)
DCV24 + ASU24		1.18 (0.91 to 1.73)	12.30 (–6.52 to 34.23)
DCV24 + ASU24 + PR24		1.30 (1.10 to 1.67)	19.88 (7.39 to 33.66)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		1.19 (0.87 to 1.78)	12.98 (–9.64 to 36.88)
SOF12 + SIM12 + RBV12	SIM12 PR48	0.78 (0.08 to 1.34)	–16.94 (–74.93 to 22.89)
B32 PR36-48 RGT		0.84 (0.56 to 1.23)	–12.91 (–36.52 to 14.40)
SOF12 + RBV12		0.18 (0.01 to 0.69)	–62.79 (–83.05 to –22.15)
PAR/RIT12 + OMB12 + DAS12		1.23 (1.04 to 1.69)	18.01 (3.77 to 39.56)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.10 to 1.71)	19.53 (8.91 to 40.27)
DCV24 + ASU24		1.01 (0.82 to 1.35)	0.64 (–15.45 to 20.53)
DCV24 + ASU24 + PR24		1.11 (0.85 to 1.51)	8.39 (–12.73 to 29.75)
SOF12 + PR12		1.02 (0.76 to 1.44)	1.22 (–20.50 to 25.87)
B32 PR36-48 RGT	SOF12 + SIM12 + RBV12	1.08 (0.59 to 11.44)	5.03 (–37.57 to 63.44)
SOF12 + RBV12		0.26 (0.02 to 3.76)	–42.61 (–88.94 to 21.76)
PAR/RIT12 + OMB12 + DAS12		1.58 (0.99 to 16.32)	35.63 (–0.68 to 89.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.61 (1.01 to 16.96)	37.31 (1.32 to 92.36)
DCV24 + ASU24		1.29 (0.79 to 13.69)	17.45 (–19.14 to 75.28)
DCV24 + ASU24 + PR24		1.42 (0.89 to 13.87)	25.56 (–10.42 to 79.01)
SOF12 + PR12		1.31 (0.77 to 13.38)	18.54 (–20.94 to 74.78)
SOF12 + RBV12	B32 PR36-48 RGT	0.22 (0.02 to 0.86)	–50.18 (–73.87 to –8.00)
PAR/RIT12 + OMB12 + DAS12		1.47 (1.14 to 2.16)	31.01 (11.55 to 52.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.50 (1.19 to 2.20)	32.66 (15.73 to 53.54)
DCV24 + ASU24		1.21 (0.87 to 1.80)	13.65 (–10.10 to 36.46)
DCV24 + ASU24 + PR24		1.32 (0.95 to 1.94)	21.27 (–4.02 to 43.15)
SOF12 + PR12		1.21 (0.85 to 1.82)	13.99 (–11.38 to 38.28)
PAR/RIT12 + OMB12 + DAS12	SOF12 + RBV12	6.78 (1.85 to 91.79)	81.85 (43.19 to 96.92)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.92 (1.89 to 93.33)	83.95 (46.03 to 97.35)
DCV24 + ASU24		5.55 (1.49 to 73.79)	64.30 (24.91 to 82.40)
DCV24 + ASU24 + PR24		6.02 (1.62 to 81.39)	71.55 (30.75 to 89.70)
SOF12 + PR12		5.54 (1.47 to 73.81)	64.24 (23.62 to 84.76)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.97 to 1.13)	1.10 (–2.88 to 11.42)
DCV24 + ASU24		0.82 (0.66 to 0.95)	–17.30 (–32.81 to –4.49)
DCV24 + ASU24 + PR24		0.90 (0.70 to 1.01)	–9.26 (–28.29 to 0.47)
SOF12 + PR12		0.83 (0.63 to 0.97)	–16.73 (–36.27 to –2.37)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.81 (0.66 to 0.90)	–18.89 (–33.42 to –9.83)
DCV24 + ASU24 + PR24		0.89 (0.68 to 0.97)	–10.85 (–30.87 to –2.94)
SOF12 + PR12		0.81 (0.62 to 0.93)	–18.28 (–37.32 to –6.71)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.10 (0.84 to 1.37)	7.82 (–12.99 to 24.14)
SOF12 + PR12		1.01 (0.75 to 1.31)	0.69 (–20.51 to 20.46)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.92 (0.69 to 1.22)	–7.06 (–27.48 to 15.24)
Random effect model	Residual deviance	35.49 vs. 40 data points	
	Deviance information criteria	220.783	
Fixed effect model	Residual deviance	35.38 vs. 40 data points	
	Deviance information criteria	220.182	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 36: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Treatment-Experienced
Patients With Prior Relapse
All Patients

TABLE 107: SVR GENOTYPE 1 TREATMENT-EXPERIENCED WITH PRIOR RELAPSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	PR48	2.49 (1.87 to 3.10)	45.12 (27.76 to 56.18)
B32 PR36-48 RGT		2.28 (1.43 to 3.11)	38.77 (13.53 to 56.52)
SOF12 + LDV12		2.91 (1.99 to 3.71)	58.98 (30.41 to 70.79)
PAR/RIT12 + OMB12 + DAS12		3.13 (2.43 to 3.83)	64.94 (46.06 to 72.34)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.08 (2.46 to 3.77)	63.33 (47.70 to 70.80)
SOF12 + LDV12 + RBV12		3.16 (2.58 to 3.87)	65.80 (52.86 to 72.67)
B32 PR36-48 RGT	SIM12 PR24-48 RGT	0.92 (0.59 to 1.28)	–6.18 (–32.61 to 17.44)
SOF12 + LDV12		1.18 (0.79 to 1.54)	13.86 (–16.37 to 33.26)
PAR/RIT12 + OMB12 + DAS12		1.25 (1.05 to 1.55)	19.31 (3.73 to 33.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.24 (1.07 to 1.50)	17.93 (5.54 to 30.95)
SOF12 + LDV12 + RBV12		1.27 (1.06 to 1.63)	20.50 (4.92 to 37.38)
SOF12 + LDV12	B32 PR36-48 RGT	1.28 (0.83 to 1.99)	19.60 (–12.71 to 45.76)
PAR/RIT12 + OMB12 + DAS12		1.37 (1.02 to 2.11)	25.62 (1.62 to 50.08)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.35 (1.03 to 2.07)	24.16 (1.99 to 48.48)
SOF12 + LDV12 + RBV12		1.38 (1.08 to 2.14)	26.58 (6.75 to 50.91)
PAR/RIT12 + OMB12 + DAS12	SOF12 + LDV12	1.06 (0.85 to 1.55)	5.31 (–14.30 to 34.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.04 (0.86 to 1.54)	3.81 (–13.40 to 32.95)
SOF12 + LDV12 + RBV12		1.07 (0.91 to 1.58)	6.13 (–8.93 to 35.48)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.98 (0.84 to 1.19)	–1.48 (–15.03 to 14.96)
SOF12 + LDV12 + RBV12		1.01 (0.88 to 1.25)	0.71 (–11.56 to 18.95)
SOF12 + LDV12 + RBV12	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.03 (0.89 to 1.22)	2.33 (–10.53 to 17.31)
Random effect model	Residual deviance	13.67 vs. 14 data points	
	Deviance information criteria	84.089	
Fixed effect model	Residual deviance	13.66 vs. 14 data points	
	Deviance information criteria	83.718	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 1a

TABLE 108: SVR GENOTYPE 1A TREATMENT-EXPERIENCED WITH PRIOR RELAPSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	PR48	2.62 (1.85 to 3.60)	45.63 (26.75 to 60.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.30 (2.51 to 4.36)	64.94 (48.52 to 73.97)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 PR24-48 RGT	1.26 (0.98 to 1.66)	19.08 (–2.04 to 37.74)
Random effect model	Residual deviance	5.624 vs. 6 data points	
	Deviance information criteria	33.823	
Fixed effect model	Residual deviance	5.68 vs. 6 data points	
	Deviance information criteria	33.668	

CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 1b

TABLE 109: SVR GENOTYPE 1B TREATMENT-EXPERIENCED WITH PRIOR RELAPSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	PR48	1.97 (1.53 to 2.45)	42.04 (25.00 to 53.45)
Random effect model	Residual deviance	3.136 vs. 4 data points	
	Deviance information criteria	21.892	
Fixed effect model	Residual deviance	3.018 vs. 4 data points	
	Deviance information criteria	21.653	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 110: SVR GENOTYPE 1 WITH CIRRHOSIS TREATMENT-EXPERIENCED WITH PRIOR RELAPSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	PR48	2.68 (1.28 to 6.70)	45.81 (11.32 to 69.16)
Random effect model	Residual deviance	2.015 vs. 2 data points	
	Deviance information criteria	11.069	
Fixed effect model	Residual deviance	1.97 vs. 2 data points	
	Deviance information criteria	10.976	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RGT = response-guided therapy; RR = relative risk; SIM = simeprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 111: SVR GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED WITH PRIOR RELAPSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	PR48	2.12 (1.64 to 2.57)	41.14 (24.41 to 51.74)
B32 PR36-48 RGT		2.14 (1.46 to 2.75)	41.82 (18.10 to 56.71)
PAR/RIT12 + OMB12 + DAS12		2.61 (2.16 to 3.09)	59.38 (45.37 to 66.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.56 (2.09 to 3.04)	57.48 (42.59 to 64.71)
B32 PR36-48 RGT	SIM12 PR24-48 RGT	1.01 (0.72 to 1.33)	0.71 (–23.12 to 21.41)
PAR/RIT12 + OMB12 + DAS12		1.23 (1.02 to 1.56)	17.99 (1.79 to 34.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.20 (1.06 to 1.45)	15.87 (5.08 to 28.67)
PAR/RIT12 + OMB12 + DAS12	B32 PR36-48 RGT	1.22 (0.99 to 1.68)	17.12 (–0.53 to 39.29)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (0.97 to 1.64)	15.34 (–2.69 to 37.18)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.98 (0.83 to 1.14)	–1.93 (–16.13 to 11.93)
Random effect model	Residual deviance	8.881 vs. 10 data points	
	Deviance information criteria	59.882	
Fixed effect model	Residual deviance	8.843 vs. 10 data points	
	Deviance information criteria	59.796	

B = boceprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced Patients With Prior Partial Response
All Patients

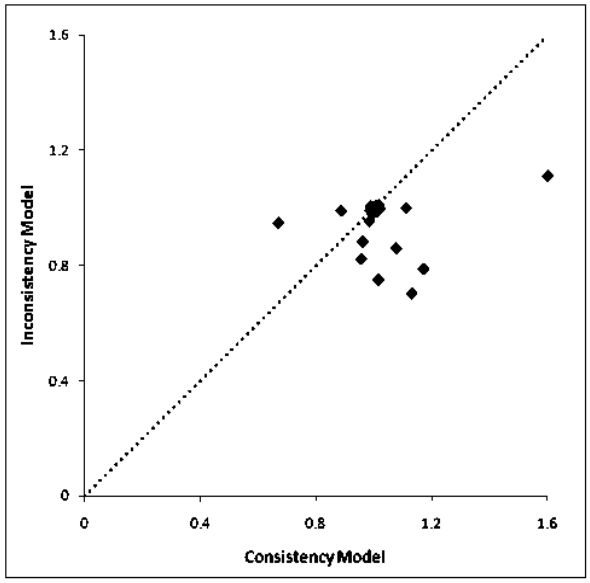
TABLE 112: SVR GENOTYPE 1 TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	3.88 (1.21 to 6.43)	37.80 (2.44 to 54.42)
SIM12 PR48		4.25 (1.85 to 7.08)	42.14 (10.22 to 59.45)
B32 PR36-48 RGT		3.67 (1.16 to 7.87)	34.70 (2.09 to 68.53)
PAR/RIT12 + OMB12 + DAS12		6.52 (2.35 to 10.53)	73.36 (16.24 to 86.02)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.19 (4.05 to 11.41)	80.99 (38.60 to 88.41)
DCV24 + ASU24		5.43 (2.59 to 8.80)	57.90 (19.75 to 73.41)
DCV24 + ASU24 + PR24		6.17 (1.72 to 9.90)	68.74 (8.30 to 81.31)
SIM12 PR48	T12 PR48 q8	1.09 (0.71 to 2.46)	4.31 (–14.09 to 29.46)
B32 PR36-48 RGT		0.95 (0.34 to 3.03)	–2.23 (–38.11 to 44.63)
PAR/RIT12 + OMB12 + DAS12		1.66 (1.03 to 3.59)	33.87 (1.06 to 57.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.82 (1.32 to 4.86)	41.75 (16.36 to 68.76)
DCV24 + ASU24		1.38 (0.98 to 3.28)	19.35 (–0.91 to 45.62)
DCV24 + ASU24 + PR24		1.57 (0.87 to 2.97)	29.35 (–3.26 to 48.37)
B32 PR36-48 RGT	SIM12 PR48	0.87 (0.29 to 2.25)	–6.84 (–43.16 to 38.70)
PAR/RIT12 + OMB12 + DAS12		1.53 (0.72 to 2.81)	29.92 (–11.51 to 54.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.67 (1.23 to 3.10)	37.29 (11.68 to 58.72)
DCV24 + ASU24		1.27 (0.74 to 2.47)	15.17 (–13.77 to 42.10)
DCV24 + ASU24 + PR24		1.45 (0.56 to 2.45)	25.31 (–17.20 to 46.68)
PAR/RIT12 + OMB12 + DAS12	B32 PR36-48 RGT	1.75 (0.64 to 4.85)	36.11 (–19.74 to 71.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.93 (0.98 to 5.62)	44.48 (–1.16 to 75.75)
DCV24 + ASU24		1.47 (0.64 to 4.39)	22.14 (–24.55 to 58.75)
DCV24 + ASU24 + PR24		1.65 (0.51 to 4.50)	31.61 (–24.96 to 65.70)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.08 (0.76 to 2.56)	6.76 (–18.90 to 49.44)
DCV24 + ASU24		0.83 (0.50 to 1.83)	–14.82 (–40.86 to 26.51)
DCV24 + ASU24 + PR24		0.95 (0.38 to 1.72)	–4.66 (–43.23 to 28.59)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.76 (0.42 to 1.16)	–22.14 (–50.36 to 8.75)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24		0.88 (0.30 to 1.17)	–11.51 (–56.09 to 10.78)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.14 (0.42 to 1.77)	10.16 (–33.44 to 33.25)
Random effect model	Residual deviance	20.56 vs. 20 data points	
	Deviance information criteria	113.704	
Fixed effect model	Residual deviance	20.84 vs. 20 data points	
	Deviance information criteria	113.016	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 37: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



GENOTYPE 1a

TABLE 113: SVR GENOTYPE 1A TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS-RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	2.09 (0.81 to 6.19)	23.89 (–6.56 to 50.26)
SIM12 PR48		1.82 (0.58 to 5.78)	17.89 (–14.11 to 50.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		4.14 (1.97 to 11.79)	69.35 (37.44 to 86.62)
SIM12 PR48	T12 PR48 q8	0.88 (0.48 to 1.37)	–5.61 (–23.03 to 14.40)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.95 (1.34 to 3.71)	44.15 (20.84 to 66.13)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 PR48	2.24 (1.30 to 5.65)	49.92 (19.31 to 75.55)
Random effect model	Residual deviance	7.191 vs. 8 data points	
	Deviance information criteria	42.855	
Fixed effect model	Residual deviance	7.265 vs. 8 data points	
	Deviance information criteria	42.87	

CrI = credible interval; DAS = dasabuvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 1b

TABLE 114: SVR GENOTYPE 1B TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + PR48	PR48	3.66 (1.13 to 17.58)	51.35 (3.80 to 78.65)
Random effect model	Residual deviance	5.379 vs. 6 data points	
	Deviance information criteria	30.879	
Fixed effect model	Residual deviance	5.496 vs. 6 data points	
	Deviance information criteria	30.785	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 115: SVR GENOTYPE 1 WITH CIRRHOSIS TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	1.43 (0.34 to 9.97)	9.04 (–34.14 to 43.35)
SIM12 PR48		1.57 (0.26 to 10.81)	11.65 (–35.07 to 56.13)
SIM12 PR48	T12 PR48 q8	1.10 (0.39 to 2.29)	2.92 (–20.96 to 32.04)
Random effect model	Residual deviance	3.785 vs. 4 data points	
	Deviance information criteria	20.106	
Fixed effect model	Residual deviance	3.758 vs. 4 data points	
	Deviance information criteria	20.045	

CrI = credible interval; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 116: SVR GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED WITH PARTIAL RESPONSE: RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	3.25 (0.61 to 6.68)	37.05 (–5.67 to 65.73)
SIM12 PR48		3.06 (0.32 to 6.67)	34.15 (–9.72 to 67.13)
B32 PR36-48 RGT		3.35 (0.74 to 7.69)	38.14 (–4.12 to 71.52)
PAR/RIT12 + OMB12 + DAS12		5.54 (2.54 to 10.25)	74.51 (23.59 to 86.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.54 (1.67 to 10.14)	75.68 (9.60 to 86.83)
SIM12 PR48	T12 PR48 q8	0.95 (0.26 to 1.84)	–2.33 (–29.35 to 21.17)
B32 PR36-48 RGT		1.03 (0.31 to 4.99)	1.25 (–44.35 to 55.73)
PAR/RIT12 + OMB12 + DAS12		1.66 (0.90 to 8.08)	35.18 (–5.57 to 77.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.66 (1.01 to 5.71)	35.00 (0.32 to 67.37)
B32 PR36-48 RGT	SIM12 PR48	1.09 (0.33 to 9.15)	4.17 (–45.27 to 60.73)
PAR/RIT12 + OMB12 + DAS12		1.76 (0.93 to 15.18)	38.12 (–4.31 to 83.25)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.76 (0.98 to 11.86)	37.43 (–0.82 to 76.98)
PAR/RIT12 + OMB12 + DAS12	B32 PR36-48 RGT	1.63 (0.76 to 6.49)	34.56 (–15.77 to 74.17)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.63 (0.57 to 5.79)	34.94 (–23.89 to 72.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.34 to 1.74)	0.94 (–51.39 to 35.10)
Random effect model	Residual deviance	12.44 vs. 12 data points	
	Deviance information criteria	64.345	
Fixed effect model	Residual deviance	12.82 vs. 12 data points	
	Deviance information criteria	64.298	

B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced patients With Prior Null Response
All Patients

TABLE 117: SVR GENOTYPE 1 TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

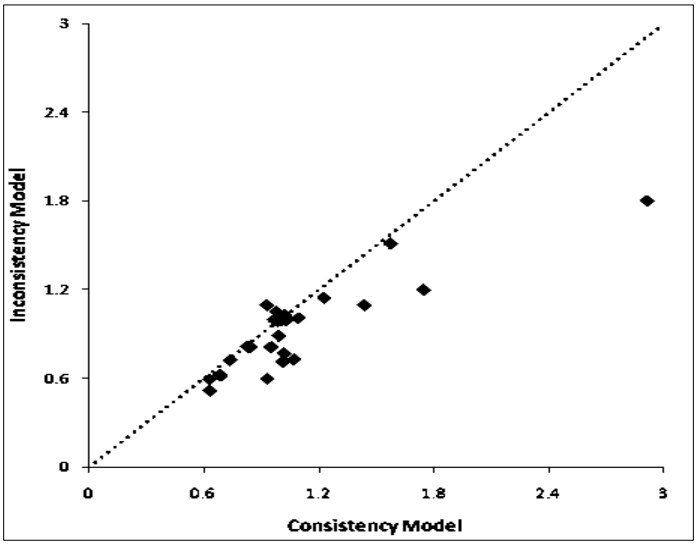
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	1.21 (0.19 to 3.58)	3.59 (–14.65 to 46.12)
T12 PR48 q8		1.53 (0.34 to 2.92)	9.54 (–11.13 to 30.64)
SOF12 + PR12		0.56 (0.06 to 2.83)	–7.47 (–18.99 to 31.75)
SIM12 PR48		1.67 (0.46 to 3.10)	12.28 (–9.33 to 32.19)
SOF12+ SIM12 + RBV12		2.44 (0.35 to 5.27)	25.58 (–10.83 to 68.67)
SOF12 + LDV12 + RBV12		3.77 (0.97 to 6.21)	51.31 (–0.49 to 74.94)
SOF12 + RBV12		0.73 (0.10 to 3.30)	–4.67 (–18.36 to 36.15)
PAR/RIT12 + OMB12 + DAS12		4.33 (1.09 to 6.86)	63.43 (1.34 to 80.38)
PAR/RIT12 + OMB12 + DAS12 + RBV12		4.51 (1.33 to 7.00)	67.00 (5.28 to 80.14)
DCV24 + ASU24		3.67 (1.32 to 5.78)	49.97 (5.00 to 67.75)
DCV24 + ASU24 + PR24		4.16 (1.12 to 6.57)	60.54 (1.81 to 77.44)
T12 PR48 q8	SIM12 + SOF12	1.18 (0.25 to 6.99)	3.42 (–35.75 to 31.84)
SOF12 + PR12		0.47 (0.09 to 2.84)	–9.60 (–41.69 to 18.99)
SIM12 PR48		1.31 (0.31 to 8.75)	6.03 (–35.09 to 35.56)
SOF12 + SIM12 + RBV12		1.81 (0.52 to 7.84)	17.63 (–12.86 to 57.35)
SOF12 + LDV12 + RBV12		2.90 (0.71 to 18.88)	41.49 (–9.91 to 78.62)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12		0.61 (0.07 to 7.14)	–7.02 (–52.88 to 36.78)
PAR/RIT12 + OMB12 + DAS12		3.35 (0.83 to 21.80)	52.48 (–5.17 to 84.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.53 (0.98 to 22.23)	55.82 (–0.60 to 86.09)
DCV24 + ASU24		2.91 (0.86 to 18.25)	40.34 (–5.84 to 71.79)
DCV24 + ASU24 + PR24		3.20 (0.94 to 18.16)	48.29 (–1.57 to 80.56)
SOF12 + PR12	T12 PR48 q8	0.39 (0.04 to 3.40)	–14.53 (–41.15 to 27.27)
SIM12 PR48		1.04 (0.46 to 3.82)	1.08 (–16.26 to 26.53)
SOF12+ SIM12 + RBV12		1.61 (0.27 to 7.48)	15.90 (–23.53 to 62.02)
SOF12 + LDV12 + RBV12		2.32 (1.15 to 7.54)	39.00 (2.50 to 65.73)
SOF12 + RBV12		0.51 (0.07 to 4.47)	–12.08 (–41.15 to 34.67)
PAR/RIT12 + OMB12 + DAS12		2.65 (1.27 to 9.25)	49.42 (4.13 to 74.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.77 (1.31 to 10.97)	52.54 (5.66 to 77.01)
DCV24 + ASU24		2.29 (1.44 to 7.60)	37.01 (8.62 to 59.22)
DCV24 + ASU24 + PR24		2.57 (1.28 to 8.25)	47.39 (4.42 to 67.71)
SIM12 PR48	SOF12 + PR12	2.83 (0.38 to 26.96)	17.20 (–23.28 to 42.28)
SOF12 + SIM12 + RBV12		3.96 (0.51 to 31.50)	29.53 (–13.04 to 74.21)
SOF12 + LDV12 + RBV12		6.33 (0.86 to 61.32)	54.70 (–3.77 to 86.06)
SOF12 + RBV12		1.28 (0.10 to 20.03)	2.25 (–37.40 to 44.10)
PAR/RIT12 + OMB12 + DAS12		7.31 (0.99 to 70.43)	66.17 (–0.18 to 91.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.72 (1.15 to 72.18)	69.74 (3.99 to 91.55)
DCV24 + ASU24		6.36 (1.00 to 59.63)	53.61 (–0.01 to 78.48)
DCV24 + ASU24 + PR24		6.93 (1.05 to 63.00)	62.49 (1.21 to 88.76)
SOF12+ SIM12 + RBV12	SIM12 PR48	1.49 (0.22 to 5.88)	13.97 (–28.49 to 60.10)
SOF12 + LDV12 + RBV12		2.20 (0.68 to 6.82)	37.90 (–8.95 to 66.41)
SOF12 + RBV12		0.46 (0.06 to 3.37)	–14.65 (–41.95 to 31.37)
PAR/RIT12 + OMB12 + DAS12		2.51 (0.80 to 7.79)	49.02 (–4.90 to 73.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.62 (1.17 to 7.01)	51.94 (3.63 to 70.70)
DCV24 + ASU24		2.15 (0.88 to 6.74)	36.17 (–3.55 to 60.91)
DCV24 + ASU24 + PR24		2.43 (0.77 to 7.19)	46.77 (–6.09 to 68.65)
SOF12 + LDV12 + RBV12	SOF12 + SIM12 + RBV12	1.46 (0.38 to 9.97)	20.20 (–37.45 to 71.32)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12		0.32 (0.04 to 3.55)	–26.93 (–76.77 to 26.09)
PAR/RIT12 + OMB12 + DAS12		1.70 (0.45 to 11.33)	30.67 (–31.24 to 78.68)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.77 (0.54 to 11.72)	33.94 (–25.84 to 79.57)
DCV24 + ASU24		1.46 (0.49 to 9.75)	19.97 (–32.36 to 64.17)
DCV24 + ASU24 + PR24		1.62 (0.47 to 10.20)	27.28 (–30.11 to 74.13)
SOF12 + RBV12	SOF12 + LDV12 + RBV12	0.21 (0.03 to 1.51)	–52.25 (–84.90 to 11.70)
PAR/RIT12 + OMB12 + DAS12		1.13 (0.38 to 3.49)	9.51 (–39.16 to 54.32)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (0.44 to 3.87)	12.27 (–36.70 to 57.91)
DCV24 + ASU24		0.97 (0.43 to 3.03)	–2.37 (–38.64 to 40.53)
DCV24 + ASU24 + PR24		1.10 (0.38 to 3.25)	7.02 (–41.44 to 47.13)
PAR/RIT12 + OMB12 + DAS12	SOF12 + RBV12	5.55 (0.81 to 40.76)	63.76 (–5.60 to 90.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.86 (0.92 to 42.53)	67.06 (–2.42 to 90.59)
DCV24 + ASU24		4.78 (0.84 to 34.61)	50.89 (–6.39 to 78.44)
DCV24 + ASU24 + PR24		5.32 (0.78 to 39.03)	60.17 (–7.49 to 88.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.03 (0.38 to 3.23)	2.29 (–44.71 to 51.99)
DCV24 + ASU24		0.85 (0.37 to 2.66)	–12.33 (–48.41 to 35.61)
DCV24 + ASU24 + PR24		0.98 (0.32 to 2.78)	–2.10 (–50.23 to 41.58)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.82 (0.34 to 2.29)	–15.21 (–51.17 to 32.92)
DCV24 + ASU24 + PR24		0.95 (0.30 to 2.36)	–4.16 (–54.12 to 37.81)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.14 (0.37 to 2.44)	10.16 (–37.13 to 40.77)
Random effect model	Residual deviance	35.61 vs. 34 data points	
	Deviance information criteria	188.092	
Fixed effect model	Residual deviance	32.86 vs. 34 data points	
	Deviance information criteria	182.925	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 38: SUSTAINED VIROLOGIC RESPONSE GENOTYPE 1 TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Genotype 1a

TABLE 118: SVR GENOTYPE 1A TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PR48	5.51 (1.70 to 18.80)	69.67 (7.37 to 86.70)
PAR/RIT24 + OMB24 + DAS24 + RBV24		5.94 (1.73 to 20.49)	75.79 (7.26 to 90.80)
T12 PR48 q8		1.12 (0.22 to 4.22)	1.62 (–17.95 to 21.84)
SIM12 PR48		1.85 (0.33 to 7.33)	12.18 (–12.43 to 43.91)
PAR/RIT24 + OMB24 + DAS24 + RBV24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.06 (0.57 to 2.14)	4.85 (–20.49 to 34.88)
T12 PR48 q8		0.20 (0.06 to 0.46)	–67.40 (–80.70 to –10.76)
SIM12 PR48		0.34 (0.08 to 0.91)	–55.31 (–76.02 to –1.88)
T12 PR48 q8	PAR/RIT24 + OMB24 + DAS24 + RBV24	0.19 (0.05 to 0.49)	–73.47 (–87.39 to –9.36)
SIM12 PR48		0.32 (0.07 to 0.92)	–61.58 (–83.29 to –1.49)
SIM12 PR48	T12 PR48 q8	1.62 (0.70 to 4.34)	10.24 (–3.11 to 32.46)
Random effect model	Residual deviance	12.13 vs. 10 data points	

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
	Deviance information criteria	60.688	
Fixed effect model	Residual deviance	13.75 vs. 10 data points	
	Deviance information criteria	61.415	

CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 1b

TABLE 119: SVR GENOTYPE 1B TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + PR48	PR48	3.22 (0.73 to 18.18)	16.90 (–4.31 to 45.01)
DCV24 + ASU24		4.29 (0.80 to 25.79)	25.51 (–2.44 to 65.54)
DCV24 + ASU24	SIM12 + PR48	1.33 (0.53 to 2.86)	8.10 (–12.37 to 36.78)
Random effect model	Residual deviance	7.807 vs. 8 data points	
	Deviance information criteria	46.636	
Fixed effect model	Residual deviance	7.691 vs. 8 data points	
	Deviance information criteria	46.305	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RD = risk difference; RR = relative risk; SIM = simeprevir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 120: SVR GENOTYPE 1 WITH CIRRHOSIS TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	0.85 (0.19 to 3.36)	–2.33 (–29.77 to 17.66)
SIM12 PR48		0.58 (0.10 to 2.47)	–6.56 (–33.68 to 13.51)
SOF12 + LDV12 + RBV12		4.36 (1.28 to 16.72)	61.05 (6.95 to 87.70)
SIM12 + SOF12		3.36 (0.70 to 12.86)	42.84 (–6.07 to 80.39)
SOF12 + SIM12 + RBV12		2.96 (0.43 to 12.11)	35.22 (–13.28 to 79.62)
SOF12 + PR12		1.64 (0.12 to 7.97)	9.71 (–25.84 to 69.83)
SIM12 PR48	T12 PR48 q8	0.68 (0.22 to 1.64)	–4.11 (–16.87 to 8.17)
SOF12 + LDV12 + RBV12		5.10 (2.12 to 16.17)	64.16 (16.53 to 87.52)
SIM12 + SOF12		3.86 (1.03 to 13.05)	45.35 (0.46 to 82.59)
SOF12 + SIM12 + RBV12		3.43 (0.69 to 11.76)	38.10 (–4.11 to 79.91)
SOF12 + PR12		1.83 (0.17 to 9.01)	11.88 (–16.29 to 72.93)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12	SIM12 PR48	7.59 (2.30 to 37.73)	68.96 (18.82 to 91.68)
SIM12 + SOF12		5.65 (1.60 to 24.60)	49.82 (5.26 to 85.54)
SOF12 + SIM12 + RBV12		4.89 (1.28 to 20.33)	42.35 (1.87 to 83.40)
SOF12 + PR12		2.68 (0.28 to 15.78)	16.25 (–10.12 to 76.31)
SIM12 + SOF12	SOF12 + LDV12 + RBV12	0.80 (0.16 to 2.11)	–15.90 (–72.30 to 39.85)
SOF12 + SIM12 + RBV12		0.71 (0.11 to 1.93)	–21.80 (–78.06 to 35.95)
SOF12 + PR12		0.37 (0.03 to 1.45)	–46.33 (–89.22 to 20.46)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.90 (0.17 to 3.75)	–6.29 (–63.10 to 54.77)
SOF12 + PR12		0.49 (0.08 to 1.13)	–25.54 (–60.87 to 5.99)
SOF12 + PR12	SOF12 + SIM12 + RBV12	0.56 (0.05 to 3.57)	–19.56 (–77.39 to 44.90)
Random effect model	Residual deviance	29.34 vs. 31 data points	
	Deviance information criteria	145.523	
Fixed effect model	Residual deviance	29.3 vs. 31 data points	
	Deviance information criteria	145.001	

CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 121: SVR GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED WITH PRIOR NULL RESPONSE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	1.22 (0.19 to 3.64)	1.64 (–7.36 to 18.97)
SIM12 PR48		1.07 (0.10 to 3.70)	0.49 (–8.59 to 19.29)
SOF12 + RBV12		1.40 (0.07 to 10.66)	3.02 (–11.27 to 47.95)
SOF12 + LDV12 + RBV12		4.99 (0.47 to 15.51)	33.36 (–3.38 to 80.85)
PAR/RIT12 + OMB12 + DAS12		8.00 (1.26 to 21.07)	61.52 (1.38 to 88.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.39 (1.01 to 18.58)	56.86 (0.07 to 81.97)
DCV24 + ASU24		2.10 (0.18 to 7.77)	8.59 (–6.70 to 45.95)
DCV24 + ASU24 + PR24		6.58 (0.63 to 18.80)	48.92 (–1.96 to 86.26)
SIM12 + SOF12		4.70 (0.33 to 14.66)	31.22 (–4.18 to 78.07)
SOF12 + SIM12 + RBV12		7.78 (1.07 to 21.11)	61.10 (0.49 to 88.89)
SIM12 PR48	T12 PR48 q8	0.88 (0.22 to 2.23)	–0.94 (–9.33 to 7.36)
SOF12 + RBV12		1.17 (0.05 to 19.77)	1.35 (–23.28 to 47.89)
SOF12 + LDV12 + RBV12		3.76 (0.77 to 20.60)	29.93 (–1.06 to 76.14)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		6.15 (2.08 to 32.50)	57.26 (4.09 to 84.76)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.79 (2.04 to 23.27)	53.63 (3.19 to 74.79)
DCV24 + ASU24		1.64 (0.35 to 7.71)	5.90 (–5.82 to 36.78)
DCV24 + ASU24 + PR24		5.00 (1.03 to 28.47)	45.44 (0.10 to 81.77)
SIM12 + SOF12		3.66 (0.54 to 17.41)	28.37 (–2.56 to 71.08)
SOF12 + SIM12 + RBV12		6.03 (1.64 to 33.49)	56.84 (2.51 to 85.42)
SOF12 + RBV12	SIM12 PR48	1.38 (0.06 to 31.53)	2.38 (–23.14 to 48.84)
SOF12 + LDV12 + RBV12		4.36 (0.81 to 40.94)	30.95 (–1.00 to 78.31)
PAR/RIT12 + OMB12 + DAS12		7.09 (2.05 to 65.26)	58.30 (4.14 to 86.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.60 (1.94 to 48.81)	54.23 (3.00 to 77.63)
DCV24 + ASU24		1.87 (0.35 to 16.10)	6.98 (–6.55 to 39.69)
DCV24 + ASU24 + PR24		5.73 (1.68 to 38.65)	46.39 (1.53 to 82.29)
SIM12 + SOF12		4.15 (0.90 to 22.96)	29.51 (–0.29 to 71.36)
SOF12 + SIM12 + RBV12		7.03 (2.21 to 48.76)	57.64 (3.93 to 86.18)
SOF12 + LDV12 + RBV12	SOF12 + RBV12	3.43 (0.16 to 82.87)	27.04 (–33.19 to 82.80)
PAR/RIT12 + OMB12 + DAS12		5.46 (0.42 to 112.90)	53.65 (–17.96 to 91.82)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.00 (0.36 to 102.00)	48.66 (–20.08 to 85.64)
DCV24 + ASU24		1.44 (0.06 to 38.64)	4.12 (–43.78 to 47.83)
DCV24 + ASU24 + PR24		4.44 (0.22 to 91.70)	41.68 (–26.52 to 88.34)
SIM12 + SOF12		3.20 (0.12 to 70.48)	25.04 (–34.76 to 80.41)
SOF12 + SIM12 + RBV12		5.30 (0.37 to 105.80)	53.14 (–20.18 to 91.41)
PAR/RIT12 + OMB12 + DAS12	SOF12 + LDV12 + RBV12	1.53 (0.33 to 14.13)	21.16 (–36.46 to 72.51)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.42 (0.27 to 11.27)	16.73 (–38.86 to 62.59)
DCV24 + ASU24		0.44 (0.04 to 3.37)	–20.82 (–71.83 to 20.03)
DCV24 + ASU24 + PR24		1.28 (0.16 to 11.05)	10.95 (–49.58 to 67.92)
SIM12 + SOF12		0.95 (0.08 to 7.59)	–1.69 (–59.56 to 54.30)
SOF12 + SIM12 + RBV12		1.50 (0.25 to 14.09)	20.24 (–41.16 to 72.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.93 (0.17 to 3.96)	–4.62 (–55.34 to 42.85)
DCV24 + ASU24		0.27 (0.03 to 1.32)	–47.08 (–82.66 to 3.93)
DCV24 + ASU24 + PR24		0.86 (0.09 to 4.13)	–8.76 (–66.13 to 47.29)
SIM12 + SOF12		0.63 (0.05 to 2.64)	–22.17 (–74.31 to 30.18)
SOF12 + SIM12 + RBV12		0.99 (0.16 to 5.00)	–0.59 (–57.56 to 54.91)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.29 (0.04 to 1.46)	–42.50 (–72.89 to 5.80)
DCV24 + ASU24 + PR24		0.92 (0.12 to 4.86)	–4.56 (–55.38 to 49.18)
SIM12 + SOF12		0.68 (0.06 to 2.89)	–17.87 (–64.22 to 30.94)
SOF12 + SIM12 + RBV12		1.07 (0.21 to 5.82)	4.24 (–47.25 to 54.71)
DCV24 + ASU24 + PR24	DCV24 + ASU24	2.98 (0.39 to 29.47)	35.82 (–14.19 to 78.67)
SIM12 + SOF12		2.19 (0.21 to 18.31)	19.65 (–21.88 to 66.02)
SOF12 + SIM12 + RBV12		3.58 (0.60 to 36.20)	46.21 (–7.75 to 83.16)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.76 (0.07 to 4.13)	–11.86 (–65.99 to 40.84)
SOF12 + SIM12 + RBV12		1.14 (0.24 to 8.49)	7.92 (–47.66 to 62.31)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	1.55 (0.48 to 12.73)	20.26 (–22.83 to 68.14)
Random effect model	Residual deviance	24.31 vs. 23 data points	
	Deviance information criteria	124.546	
Fixed effect model	Residual deviance	25.71 vs. 23 data points	
	Deviance information criteria	124.841	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 2
Treatment-Naive Patients
All Patients

TABLE 122: SVR GENOTYPE 2 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR24	1.20 (1.08 to 1.32)	15.65 (6.83 to 22.97)
SOF12 + PR12		1.13 (0.45 to 1.33)	9.81 (–42.57 to 24.12)
SOF12 + PR12	SOF12 + RBV12	0.94 (0.39 to 1.08)	–5.52 (–56.55,7.21)
Random effect model	Residual deviance	9.337 vs. 10 data points	
	Deviance information criteria	43.641	
Fixed effect model	Residual deviance	9.669 vs. 10 data points	
	Deviance information criteria	43.536	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 123: SVR GENOTYPE 2 WITH CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR24	1.38 (1.03 to 1.79)	23.52 (1.76 to 40.79)
Random effect model	Residual deviance	6.875 vs. 8 data points	
	Deviance information criteria	31.534	
Fixed effect model	Residual deviance	6.92 vs. 8 data points	
	Deviance information criteria	31.468	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 124: SVR GENOTYPE 2 WITHOUT CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR24	1.16 (1.08 to 1.24)	13.13 (7.11 to 18.84)
SOF12 + PR12		1.15 (0.48 to 1.27)	12.24 (–42.72 to 20.81)
SOF12 + PR12	SOF12 + RBV12	0.99 (0.41 to 1.07)	–0.56 (–55.44 to 6.59)
Random effect model	Residual deviance	3.912 vs. 6 data points	
	Deviance information criteria	18.761	
Fixed effect model	Residual deviance	3.841 vs. 6 data points	
	Deviance information criteria	18.66	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced Patients
All Patients

TABLE 125: SVR GENOTYPE 2 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF16 + RBV16	SOF12 + RBV12	0.86 (0.63 to 1.02)	–12.21 (–33.63 to 1.88)
SOF12 + PR12		1.07 (0.93 to 1.15)	6.57 (–6.25 to 12.59)
SOF12 + PR12	SOF16 + RBV16	1.23 (1.00 to 1.70)	18.27 (0.20 to 40.32)
Random effect model	Residual deviance	6.58 vs. 8 data points	
	Deviance information criteria	34.221	
Fixed effect model	Residual deviance	6.609 vs. 8 data points	
	Deviance information criteria	34.152	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 126: SVR GENOTYPE 2 WITH CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF16 + RBV16	SOF12 + RBV12	1.05 (0.71 to 1.41)	3.80 (–22.57 to 25.33)
SOF12 + PR12		1.29 (0.99 to 1.64)	21.20 (–1.07 to 37.97)
SOF12 + PR12	SOF16 + RBV16	1.23 (0.89 to 1.79)	17.53 (–9.56 to 42.81)
Random effect model	Residual deviance	6.875 vs. 8 data points	
	Deviance information criteria	31.534	
Fixed effect model	Residual deviance	6.92 vs. 8 data points	
	Deviance information criteria	31.468	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 127: SVR GENOTYPE 2 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12	SOF12 + RBV12	1.01 (0.89 to 1.07)	0.57 (–10.36 to 6.51)
Random effect model	Residual deviance	3.912 vs. 6 data points	
	Deviance information criteria	18.761	
Fixed effect model	Residual deviance	3.841 vs. 6 data points	
	Deviance information criteria	18.66	

CrI = credible interval; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 3
Treatment-Naive Patients
All Patients

TABLE 128: SVR GENOTYPE 3 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR 48	1.31 (1.21 to 1.37)	21.82 (14.74 to 25.97)
DCV12 + SOF12		1.37 (1.26 to 1.42)	26.08 (18.69 to 29.05)
DCV12 + SOF12	SOF24 + RBV24	1.05 (0.96 to 1.13)	4.16 (–3.50 to 11.09)
Random effect model	Residual deviance	10.56 vs. 10 data points	
	Deviance information criteria	66.132	
Fixed effect model	Residual deviance	11.32 vs. 10 data points	
	Deviance information criteria	66.119	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 129: SVR GENOTYPE 3 WITH CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.51 (1.14 to 1.70)	30.82 (8.60 to 40.21)
Random effect model	Residual deviance	7.854 vs. 8 data points	
	Deviance information criteria	48.042	
Fixed effect model	Residual deviance	8.366 vs. 8 data points	
	Deviance information criteria	48.013	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 130: SVR GENOTYPE 3 WITHOUT CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS —RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.32 (1.18 to 1.47)	22.44 (13.18 to 30.40)
DCV12 + SOF12		1.38 (1.23 to 1.53)	26.49 (17.39 to 33.81)
DCV12 + SOF12	SOF24 + RBV24	1.04 (0.95 to 1.14)	4.10 (–4.61 to 11.81)
Random effect model	Residual deviance	9.206 vs. 10 data points	
	Deviance information criteria	59.551	
Fixed effect model	Residual deviance	9.193 vs. 10 data points	
	Deviance information criteria	59.126	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced Patients
All Patients

TABLE 131: SVR GENOTYPE 3 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.52 (1.35 to 1.69)	28.39 (19.53 to 37.00)
DCV12 + SOF12		1.72 (1.44 to 1.86)	39.32 (24.20 to 45.32)
SOF12 + PR12		1.53 (1.09 to 1.77)	28.72 (4.64 to 41.13)
DCV12 + SOF12	SOF24 + RBV24	1.13 (0.93 to 1.28)	10.59 (–6.18 to 21.14)
SOF12 + PR12		1.00 (0.70 to 1.20)	0.15 (–25.27 to 15.48)
SOF12 + PR12	DCV12 + SOF12	0.89 (0.63 to 1.11)	–10.10 (–34.80 to 8.78)
Random effect model	Residual deviance	10.56 vs. 10 data points	

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
	Deviance information criteria	66.132	
Fixed effect model	Residual deviance	11.32 vs. 10 data points	
	Deviance information criteria	66.119	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 132: SVR GENOTYPE 3 WITH CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.47 (1.14 to 1.79)	22.21 (6.77 to 36.34)
SOF12 + PR12		1.73 (1.09 to 2.09)	35.03 (4.28 to 49.96)
SOF12 + PR12	SOF24 + RBV24	1.17 (0.73 to 1.59)	12.27 (–20.27 to 34.04)
Random effect model	Residual deviance	7.854 vs. 8 data points	
	Deviance information criteria	48.042	
Fixed effect model	Residual deviance	8.366 vs. 8 data points	
	Deviance information criteria	48.013	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 133: SVR GENOTYPE 3 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.47 (1.32 to 1.59)	28.43 (19.53 to 34.98)
DCV12 + SOF12		1.54 (1.31 to 1.67)	33.24 (18.76 to 39.26)
SOF12 + PR12		1.38 (0.88 to 1.62)	23.40 (–7.29 to 37.06)
DCV12 + SOF12	SOF24 + RBV24	1.05 (0.88 to 1.18)	4.66 (–10.76 to 14.60)
SOF12 + PR12		0.94 (0.60 to 1.13)	–4.92 (–36.25 to 11.22)
SOF12 + PR12	DCV12 + SOF12	0.90 (0.57 to 1.12)	–9.18 (–40.40 to 9.56)
Random effect model	Residual deviance	9.206 vs. 10 data points	
	Deviance information criteria	59.551	
Fixed effect model	Residual deviance	9.193 vs. 10 data points	
	Deviance information criteria	59.126	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Genotype 4
Treatment-Naive Patients
All Patients

TABLE 134: SVR GENOTYPE 4 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.99 (0.10 to 1.82)	–0.46 (–46.72 to 42.33)
SOF24 + RBV24		1.63 (1.18 to 1.84)	32.49 (9.45 to 43.41)
SOF12 + PR12		1.85 (1.57 to 1.95)	44.27 (29.60 to 48.25)
SOF24 + RBV24	SOF12 + RBV12	1.60 (0.91 to 15.18)	30.79 (–8.01 to 78.36)
SOF12 + PR12		1.85 (1.00 to 18.78)	43.32 (–0.27 to 91.57)
SOF12 + PR12	SOF24 + RBV24	1.13 (0.93 to 1.55)	11.12 (–6.05 to 33.72)
Random effect model	Residual deviance	3.976 vs. 4 data points	
	Deviance information criteria	19.486	
Fixed effect model	Residual deviance	3.899 vs. 4 data points	
	Deviance information criteria	19.339	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 135: SVR GENOTYPE 4 WITH CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	0.75 (0.02 to 2.46)	–9.58 (–37.61 to 55.50)
SOF24 + RBV24		2.27 (1.36 to 2.65)	48.43 (13.78 to 60.93)
SOF24 + RBV24	SOF12 + RBV12	2.88 (0.95 to 107.80)	52.51 (–4.03 to 90.91)
Random effect model	Residual deviance	3.692 vs. 4 data points	
	Deviance information criteria	14.418	
Fixed effect model	Residual deviance	3.603 vs. 4 data points	
	Deviance information criteria	14.252	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 136: SVR GENOTYPE 4 WITHOUT CIRRHOSIS TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	1.12 (0.17 to 1.52)	8.00 (–54.10 to 33.38)
SOF24 + RBV24		1.27 (0.90 to 1.47)	17.41 (–6.87 to 30.08)
SOF12 PR12		1.48 (1.27 to 1.55)	31.41 (17.51 to 35.32)
SOF24 + RBV24	SOF12 + RBV12	1.12 (0.77 to 7.01)	8.58 (–20.31 to 67.59)
SOF12 + PR12		1.31 (0.94 to 8.84)	22.55 (–6.16 to 85.03)
SOF12 + PR12	SOF24 + RBV24	1.16 (0.96 to 1.64)	13.27 (–4.10 to 37.77)
Random effect model	Residual deviance	5.703 vs. 6 data points	
	Deviance information criteria	35.428	
Fixed effect model	Residual deviance	5.68 vs. 6 data points	
	Deviance information criteria	35.411	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced Patients
All Patients

TABLE 137: SVR GENOTYPE 4 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.41 (0.85 to 2.04)	25.45 (–10.27 to 47.65)
DCV24 + ASU24 + PR24		1.55 (1.18 to 2.18)	33.59 (13.37 to 51.91)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.09 (0.87 to 1.77)	7.45 (–12.29 to 41.70)
Random effect model	Residual deviance	3.976 vs. 4 data points	
	Deviance information criteria	19.486	
Fixed effect model	Residual deviance	3.899 vs. 4 data points	
	Deviance information criteria	19.339	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

With Cirrhosis

TABLE 138: SVR GENOTYPE 4 WITH CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.47 (0.57 to 3.51)	27.52 (–27.44 to 66.40)
DCV24 + ASU24 + PR24		1.63 (1.00 to 3.81)	35.84 (–0.01 to 70.23)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.06 (0.71 to 2.99)	5.35 (–26.95 to 63.55)
Random effect model	Residual deviance	3.692 vs. 4 data points	
	Deviance information criteria	14.418	
Fixed effect model	Residual deviance	3.603 vs. 4 data points	
	Deviance information criteria	14.252	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Without Cirrhosis

TABLE 139: SVR GENOTYPE 4 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.28 (0.68 to 1.91)	18.15 (–22.15 to 43.64)
DCV24 + ASU24 + PR24		1.49 (1.12 to 2.12)	30.91 (8.97 to 51.12)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.15 (0.87 to 2.13)	12.36 (–12.13 to 51.00)
Random effect model	Residual deviance	3.781 vs. 4 data points	
	Deviance information criteria	17.861	
Fixed effect model	Residual deviance	3.818 vs. 4 data points	
	Deviance information criteria	17.935	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 11: DETAILED NETWORK META-ANALYSIS RESULTS AND CONSISTENCY PLOTS — HARMS (ALL GENOTYPES)

Treatment-Naive
Depression

TABLE 140: DEPRESSION TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.29 (0.08 to 0.96)	–9.71 (–14.22 to –0.55)
SOF12 + LDV12		0.02 (0.00 to 0.10)	–13.46 (–16.51 to –10.51)
SOF12 + LDV12 + RBV12		0.14 (0.04 to 0.48)	–11.66 (–15.14 to –6.68)
SOF24 + LDV24 + RBV24		0.05 (0.01 to 0.33)	–12.83 (–16.06 to –8.56)
T12 PR24-48 RGT q8		0.82 (0.35 to 1.87)	–2.48 (–9.12 to 12.07)
T12 PR24-48 RGT q12		0.69 (0.18 to 2.32)	–4.26 (–11.72 to 18.28)
T12 PR48 q8		2.11 (0.56 to 5.50)	15.38 (–6.42 to 56.84)
SOF12 + PR12		0.57 (0.21 to 1.53)	–5.87 (–11.74 to 6.88)
SOF12 PR24-48 RGT		0.93 (0.19 to 3.36)	–0.93 (–11.91 to 31.06)
SIM12 PR24-48 RGT		0.72 (0.42 to 1.28)	–3.76 (–8.47 to 3.78)
B24 PR28-48 RGT		1.04 (0.43 to 2.24)	0.52 (–7.91 to 17.09)
B44 PR48		1.36 (0.40 to 3.95)	4.91 (–8.60 to 38.40)
PR24		0.76 (0.16 to 2.83)	–3.34 (–12.31 to 24.35)
SOF24 + RBV24		0.78 (0.17 to 3.18)	–3.09 (–12.49 to 28.09)
DCV24 + ASU24		0.25 (0.07 to 0.92)	–10.14 (–14.08 to –1.08)
DCV12 +SOF12		0.51 (0.04 to 3.15)	–6.80 (–14.54 to 28.50)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.42 (0.08 to 1.53)	–7.98 (–13.52 to 7.25)
SOF12 + LDV12	SOF12 + RBV12	0.06 (0.01 to 0.42)	–3.60 (–12.32 to –0.77)
SOF12 + LDV12 + RBV12		0.49 (0.09 to 2.86)	–1.88 (–10.56 to 3.26)
SOF24 + LDV24 + RBV24		0.19 (0.02 to 1.63)	–3.04 (–11.75 to 1.21)
T12 PR24-48 RGT q8		2.88 (0.65 to 12.49)	7.12 (–3.52 to 21.43)
T12 PR24-48 RGT q12		2.38 (0.39 to 13.54)	5.21 (–5.58 to 27.94)
T12 PR48 q8		7.11 (1.25 to 37.43)	24.57 (1.96 to 65.81)
SOF12 + PR12		1.99 (0.79 to 5.12)	3.55 (–1.74 to 12.25)
SOF12 PR24-48 RGT		3.16 (0.42 to 19.01)	8.44 (–5.31 to 40.46)
SIM12 PR24-48 RGT		2.54 (0.72 to 9.48)	5.82 (–3.14 to 13.48)
B24 PR28-48 RGT		3.62 (0.79 to 15.60)	10.10 (–1.96 to 26.50)
B44 PR48		4.77 (0.82 to 24.00)	14.34 (–1.70 to 47.58)
PR24		2.61 (0.93 to 6.34)	6.21 (–0.23 to 27.83)
SOF24 + RBV24		2.65 (0.37 to 19.33)	6.31 (–5.81 to 37.06)
DCV24 + ASU24		0.89 (0.16 to 4.82)	–0.38 (–9.31 to 8.23)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 +SOF12		1.67 (0.11 to 17.51)	2.55 (–8.40 to 37.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.45 (0.19 to 8.73)	1.66 (–8.32 to 17.07)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	7.52 (1.01 to 77.88)	1.63 (0.01 to 6.18)
SOF24 + LDV24 + RBV24		2.90 (0.21 to 43.34)	0.44 (–0.63 to 4.08)
T12 PR24-48 RGT q8		43.36 (6.67 to 412.50)	10.97 (4.17 to 25.70)
T12 PR24-48 RGT q12		36.85 (4.11 to 401.40)	9.14 (1.94 to 32.16)
T12 PR48 q8		107.70 (13.36 to 1097.00)	28.81 (7.62 to 69.48)
SOF12 + PR12		29.89 (6.36 to 219.60)	7.52 (2.76 to 19.55)
SOF12 PR24-48 RGT		48.27 (4.63 to 580.80)	12.48 (2.21 to 44.15)
SIM12 PR24-48 RGT		39.33 (7.04 to 345.10)	9.65 (5.19 to 17.14)
B24 PR28-48 RGT		54.98 (8.28 to 511.90)	14.01 (5.27 to 30.62)
B44 PR48		73.09 (8.82 to 700.00)	18.38 (5.13 to 51.15)
PR24		41.26 (4.68 to 405.30)	10.01 (1.89 to 37.24)
SOF24 + RBV24		41.46 (4.06 to 513.70)	10.38 (1.88 to 40.74)
DCV24 + ASU24		13.69 (1.67 to 147.00)	3.12 (0.47 to 12.14)
DCV12 +SOF12		25.70 (1.14 to 445.30)	6.61 (0.07 to 41.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		21.54 (2.09 to 261.00)	5.40 (0.63 to 20.78)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.38 (0.04 to 2.75)	–1.10 (–5.16 to 2.03)
T12 PR24-48 RGT q8		5.84 (1.26 to 26.39)	9.19 (1.15 to 23.47)
T12 PR24-48 RGT q12		4.87 (0.73 to 28.25)	7.31 (–1.13 to 29.85)
T12 PR48 q8		14.27 (2.34 to 89.27)	26.87 (4.99 to 67.60)
SOF12 + PR12		4.01 (0.85 to 20.46)	5.70 (–0.70 to 17.79)
SOF12 PR24-48 RGT		6.48 (0.86 to 44.48)	10.54 (–0.56 to 42.60)
SIM12 PR24-48 RGT		5.18 (1.32 to 22.29)	7.89 (1.77 to 15.32)
B24 PR28-48 RGT		7.39 (1.55 to 33.21)	12.17 (2.35 to 28.43)
B44 PR48		9.49 (1.61 to 52.55)	16.51 (2.35 to 49.37)
PR24		5.38 (0.70 to 33.56)	8.25 (–1.13 to 35.06)
SOF24 + RBV24		5.53 (0.72 to 36.82)	8.50 (–1.15 to 39.00)
DCV24 + ASU24		1.81 (0.30 to 10.62)	1.46 (–3.52 to 10.14)
DCV12 +SOF12		3.41 (0.20 to 35.62)	4.72 (–3.34 to 39.51)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.96 (0.36 to 18.87)	3.63 (–2.74 to 18.69)

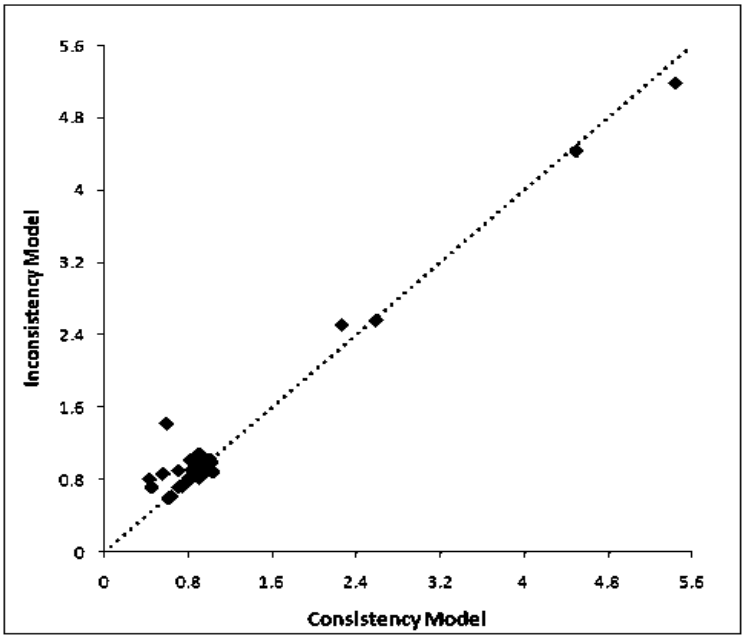
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	15.29 (2.00 to 157.30)	10.37 (2.80 to 24.56)
T12 PR24-48 RGT q12		13.12 (1.20 to 151.50)	8.51 (0.52 to 31.02)
T12 PR48 q8		37.67 (3.88 to 514.60)	28.12 (6.43 to 68.73)
SOF12 + PR12		10.65 (1.41 to 112.00)	6.86 (1.14 to 18.97)
SOF12 PR24-48 RGT		16.86 (1.43 to 218.60)	11.81 (0.95 to 43.64)
SIM12 PR24-48 RGT		13.65 (2.02 to 128.30)	9.05 (3.51 to 16.28)
B24 PR28-48 RGT		19.21 (2.52 to 195.90)	13.33 (3.96 to 29.70)
B44 PR48		24.95 (2.72 to 274.40)	17.71 (3.95 to 50.50)
PR24		13.97 (1.36 to 168.40)	9.40 (0.66 to 36.55)
SOF24 + RBV24		14.36 (1.33 to 199.40)	9.65 (0.74 to 40.05)
DCV24 + ASU24		4.68 (0.51 to 55.36)	2.54 (–1.59 to 11.24)
DCV12 +SOF12		9.11 (0.40 to 193.70)	5.96 (–1.30 to 40.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.71 (0.65 to 99.83)	4.79 (–1.01 to 19.96)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.84 (0.27 to 2.20)	–1.70 (–10.93 to 14.51)
T12 PR48 q8		2.57 (0.55 to 9.21)	17.45 (–8.08 to 59.31)
SOF12 + PR12		0.69 (0.21 to 2.51)	–3.44 (–17.90 to 10.16)
SOF12 PR24-48 RGT		1.13 (0.20 to 5.14)	1.37 (–16.04 to 33.73)
SIM12 PR24-48 RGT		0.89 (0.34 to 2.48)	–1.25 (–15.94 to 8.35)
B24 PR28-48 RGT		1.27 (0.39 to 4.01)	2.97 (–12.99 to 20.21)
B44 PR48		1.65 (0.39 to 6.28)	7.20 (–11.47 to 40.59)
PR24		0.92 (0.16 to 4.36)	–0.90 (–16.54 to 26.52)
SOF24 + RBV24		0.94 (0.17 to 4.90)	–0.63 (–17.06 to 30.53)
DCV24 + ASU24		0.31 (0.07 to 1.44)	–7.51 (–21.67 to 2.94)
DCV12 +SOF12		0.62 (0.04 to 4.55)	–3.88 (–20.05 to 30.69)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.51 (0.08 to 2.35)	–5.27 (–20.28 to 10.29)
T12 PR48 q8	T12 PR24-48 RGT q12	3.04 (0.50 to 16.35)	18.77 (–12.55 to 61.22)
SOF12 + PR12		0.83 (0.18 to 4.50)	–1.52 (–24.11 to 12.37)
SOF12 PR24-48 RGT		1.34 (0.18 to 8.67)	2.95 (–20.72 to 35.17)
SIM12 PR24-48 RGT		1.05 (0.28 to 4.60)	0.47 (–21.86 to 10.95)
B24 PR28-48 RGT		1.50 (0.34 to 7.13)	4.55 (–18.35 to 22.14)
B44 PR48		1.97 (0.37 to 10.51)	8.53 (–15.59 to 42.29)
PR24		1.09 (0.16 to 7.22)	0.75 (–21.86 to 28.07)
SOF24 + RBV24		1.13 (0.16 to 8.22)	1.09 (–22.22 to 32.01)
DCV24 + ASU24		0.37 (0.07 to 2.45)	–5.69 (–28.11 to 5.04)
DCV12 +SOF12		0.74 (0.04 to 7.42)	–2.16 (–25.90 to 32.08)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.60 (0.08 to 4.01)	–3.48 (–26.29 to 12.49)
SOF12 + PR12	T12 PR48 q8	0.28 (0.07 to 1.33)	–20.59 (–62.34 to 3.17)
SOF12 PR24-48 RGT		0.44 (0.07 to 2.99)	–15.50 (–59.78 to 24.08)
SIM12 PR24-48 RGT		0.35 (0.11 to 1.49)	–19.02 (–60.60 to 4.19)
B24 PR28-48 RGT		0.50 (0.14 to 2.22)	–14.36 (–56.62 to 12.45)
B44 PR48		0.65 (0.14 to 3.43)	–9.85 (–53.46 to 29.09)
PR24		0.37 (0.06 to 2.30)	–17.37 (–60.72 to 16.37)
SOF24 + RBV24		0.38 (0.06 to 2.46)	–17.06 (–59.78 to 19.39)
DCV24 + ASU24		0.12 (0.02 to 0.79)	–25.22 (–66.21 to –2.03)
DCV12 +SOF12		0.25 (0.03 to 0.99)	–19.61 (–50.93 to –0.16)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.20 (0.03 to 1.27)	–22.50 (–64.31 to 2.90)
SOF12 PR24-48 RGT	SOF12 + PR12	1.62 (0.25 to 8.39)	4.67 (–11.68 to 36.75)
SIM12 PR24-48 RGT		1.27 (0.46 to 3.63)	2.10 (–9.92 to 10.27)
B24 PR28-48 RGT		1.84 (0.48 to 5.90)	6.40 (–8.73 to 22.97)
B44 PR48		2.38 (0.51 to 9.84)	10.53 (–7.14 to 43.88)
PR24		1.33 (0.34 to 4.27)	2.36 (–7.54 to 25.17)
SOF24 + RBV24		1.34 (0.22 to 7.69)	2.50 (–12.63 to 33.56)
DCV24 + ASU24		0.45 (0.09 to 2.02)	–4.15 (–16.22 to 5.05)
DCV12 +SOF12		0.86 (0.06 to 7.46)	–1.03 (–15.05 to 34.62)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.74 (0.11 to 3.42)	–1.91 (–14.87 to 13.28)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.77 (0.19 to 4.35)	–2.87 (–34.88 to 10.57)
B24 PR28-48 RGT		1.11 (0.24 to 6.44)	1.36 (–31.08 to 21.04)
B44 PR48		1.46 (0.26 to 9.84)	5.45 (–27.61 to 39.86)
PR24		0.82 (0.11 to 6.31)	–2.02 (–35.12 to 26.22)
SOF24 + RBV24		0.85 (0.11 to 7.27)	–1.76 (–34.59 to 30.53)
DCV24 + ASU24		0.27 (0.05 to 2.18)	–9.02 (–40.66 to 4.54)
DCV12 +SOF12		0.55 (0.03 to 6.29)	–5.01 (–38.10 to 30.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.44 (0.06 to 3.61)	–6.73 (–38.48 to 11.49)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	1.43 (0.49 to 3.66)	4.26 (–7.14 to 20.91)
B44 PR48		1.86 (0.48 to 6.08)	8.51 (–6.73 to 41.75)
PR24		1.04 (0.21 to 4.07)	0.37 (–10.57 to 27.14)
SOF24 + RBV24		1.07 (0.20 to 4.90)	0.64 (–11.24 to 31.85)
DCV24 + ASU24		0.35 (0.11 to 1.08)	–6.25 (–12.38 to 0.78)
DCV12 +SOF12		0.69 (0.05 to 4.71)	–2.95 (–13.66 to 32.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.57 (0.10 to 2.33)	–4.13 (–13.14 to 11.15)
B44 PR48	B24 PR28-48 RGT	1.31 (0.32 to 5.12)	4.29 (–16.25 to 38.14)
PR24		0.73 (0.13 to 3.59)	–3.70 (–21.53 to 24.14)
SOF24 + RBV24		0.75 (0.14 to 3.84)	–3.41 (–21.84 to 27.77)
DCV24 + ASU24		0.24 (0.06 to 1.18)	–10.51 (–26.86 to 1.27)
DCV12 +SOF12		0.48 (0.03 to 3.67)	–6.82 (–25.00 to 28.39)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.40 (0.07 to 1.89)	–8.23 (–24.88 to 8.22)
PR24	B44 PR48	0.55 (0.09 to 3.32)	–7.63 (–41.43 to 22.20)
SOF24 + RBV24		0.57 (0.09 to 3.61)	–7.42 (–41.12 to 25.82)
DCV24 + ASU24		0.19 (0.04 to 1.12)	–14.82 (–47.63 to 0.82)
DCV12 +SOF12		0.37 (0.02 to 3.65)	–10.68 (–43.49 to 26.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.30 (0.05 to 1.88)	–12.41 (–45.21 to 7.29)
SOF24 + RBV24	PR24	1.03 (0.14 to 8.66)	0.25 (–27.16 to 31.95)
DCV24 + ASU24		0.34 (0.06 to 2.36)	–6.54 (–33.31 to 4.64)
DCV12 +SOF12		0.64 (0.04 to 7.91)	–3.11 (–30.86 to 32.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.55 (0.07 to 4.23)	–4.37 (–31.38 to 12.56)
DCV24 + ASU24	SOF24 + RBV24	0.33 (0.05 to 2.45)	–6.80 (–37.56 to 5.14)
DCV12 +SOF12		0.65 (0.03 to 7.20)	–3.03 (–35.16 to 30.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.53 (0.06 to 4.07)	–4.61 (–35.34 to 12.39)
DCV12 +SOF12	DCV24 + ASU24	1.97 (0.11 to 18.81)	3.18 (–7.65 to 37.99)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.63 (0.20 to 9.74)	2.04 (–7.45 to 17.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12	DCV12 + SOF12	0.82 (0.07 to 15.11)	–1.11 (–35.53 to 15.25)
Random effect model	Residual deviance	53.05 vs. 48 data points	
	Deviance information criteria	267.581	
Fixed effect model	Residual deviance	56.27 vs. 48 data points	
	Deviance information criteria	268.659	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 39: DEPRESSION TREATMENT-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Rash

TABLE 141: RASH TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.52 (0.17 to 1.60)	–8.48 (–16.10 to 10.73)
SOF24 + RBV24		0.77 (0.08 to 2.72)	–4.22 (–17.46 to 31.63)
SOF12 + LDV12		0.26 (0.14 to 0.48)	–13.27 (–17.51 to –8.82)
SOF8 + LDV8 + RBV8		0.96 (0.31 to 2.32)	–0.78 (–12.87 to 24.01)
SOF12 + LDV12 + RBV12		0.39 (0.20 to 0.75)	–10.98 (–15.81 to –4.35)
SOF24 + LDV24 + RBV24		0.49 (0.26 to 0.93)	–9.21 (–14.51 to –1.29)
T12 PR24-48 RGT q8		1.58 (1.04 to 2.26)	10.49 (0.67 to 22.88)
T12 PR24-48 RGT q12		1.49 (0.84 to 2.31)	8.87 (–2.88 to 23.75)
T12 PR48 q8		2.52 (1.41 to 4.03)	27.82 (7.86 to 51.33)
SOF12 + PR12		0.80 (0.37 to 1.77)	–3.60 (–11.93 to 13.85)
SOF12 PR24-48 RGT		1.60 (0.79 to 2.96)	10.88 (–4.00 to 32.53)
SIM12 PR24-48 RGT		1.12 (0.81 to 1.52)	2.15 (–3.61 to 9.16)
B24 PR28-48 RGT		1.11 (0.70 to 1.68)	1.98 (–5.63 to 12.37)
B44 PR48		2.75 (0.63 to 5.71)	32.19 (–7.14 to 72.86)
PR24		1.03 (0.31 to 2.84)	0.55 (–12.93 to 33.05)
SOF24 + RBV (low dose) 24		0.06 (0.01 to 0.35)	–16.75 (–20.81 to –11.03)
PAR/RIT12 + OMB12 + DAS12		0.22 (0.09 to 0.53)	–14.03 (–18.22 to –8.34)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.72 (0.38 to 1.30)	–5.05 (–11.99 to 5.31)
DCV24 + ASU24		0.13 (0.05 to 0.32)	–15.69 (–19.48 to –11.41)
DCV12 + SOF12		0.37 (0.05 to 1.61)	–11.36 (–18.70 to 10.80)
SOF24 + RBV24	SOF12 + RBV12	1.44 (0.15 to 6.01)	3.83 (–16.91 to 38.02)
SOF12 + LDV12		0.50 (0.19 to 1.32)	–4.71 (–22.33 to 1.18)
SOF8 + LDV8 + RBV8		1.78 (0.47 to 6.27)	7.12 (–11.65 to 31.28)
SOF12 + LDV12 + RBV12		0.74 (0.23 to 2.39)	–2.43 (–20.88 to 5.59)
SOF24 + LDV24 + RBV24		0.93 (0.29 to 3.02)	–0.68 (–19.08 to 8.19)
T12 PR24-48 RGT q8		2.99 (0.92 to 9.63)	18.67 (–2.28 to 33.02)
T12 PR24-48 RGT q12		2.81 (0.81 to 9.21)	16.92 (–4.90 to 33.58)
T12 PR48 q8		4.75 (1.47 to 15.71)	35.64 (10.40 to 59.93)
SOF12 + PR12		1.54 (0.69 to 3.43)	4.78 (–6.45 to 15.25)
SOF12 PR24-48 RGT		2.99 (0.84 to 11.07)	18.83 (–3.82 to 41.48)
SIM12 PR24-48 RGT		2.12 (0.67 to 6.97)	10.45 (–9.31 to 20.94)
B24 PR28-48 RGT		2.09 (0.62 to 6.98)	10.23 (–10.20 to 22.84)
B44 PR48		4.86 (0.85 to 20.77)	39.18 (–2.70 to 81.22)
PR24		1.92 (1.08 to 3.31)	8.67 (0.74 to 27.49)
SOF24 + RBV (low dose) 24		0.13 (0.01 to 0.61)	–8.07 (–25.98 to –1.70)
PAR/RIT12 + OMB12 + DAS12		0.42 (0.10 to 1.72)	–5.42 (–24.78 to 2.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.35 (0.43 to 4.27)	3.21 (–14.45 to 14.25)
DCV24 + ASU24		0.24 (0.05 to 1.10)	–7.05 (–26.39 to 0.37)
DCV12 + SOF12		0.68 (0.08 to 4.56)	–2.88 (–22.52 to 19.46)
SOF12 + LDV12	SOF24 + RBV24	0.34 (0.10 to 3.38)	–8.95 (–44.08 to 3.60)
SOF8 + LDV8 + RBV8		1.27 (0.26 to 13.24)	3.35 (–31.63 to 28.95)
SOF12 + LDV12 + RBV12		0.52 (0.14 to 5.22)	–6.50 (–41.85 to 7.10)
SOF24 + LDV24 + RBV24		0.66 (0.17 to 6.79)	–4.58 (–39.93 to 9.44)
T12 PR24-48 RGT q8		2.05 (0.53 to 20.05)	14.24 (–22.70 to 33.77)
T12 PR24-48 RGT q12		1.92 (0.47 to 19.27)	12.41 (–25.19 to 34.43)
T12 PR48 q8		3.30 (0.79 to 35.88)	30.85 (–9.54 to 59.33)
SOF12 + PR12		1.08 (0.28 to 10.51)	1.00 (–31.94 to 21.13)
SOF12 PR24-48 RGT		2.17 (0.48 to 17.93)	15.10 (–24.61 to 41.10)
SIM12 PR24-48 RGT		1.45 (0.39 to 14.60)	6.13 (–30.09 to 21.62)
B24 PR28-48 RGT		1.45 (0.38 to 14.29)	6.00 (–29.62 to 22.94)
B44 PR48		3.54 (0.55 to 33.81)	33.61 (–14.73 to 78.96)
PR24		1.37 (0.30 to 13.01)	4.44 (–28.65 to 37.99)
SOF24 + RBV (low dose) 24		0.09 (0.01 to 0.60)	–12.15 (–47.90 to –0.68)
PAR/RIT12 + OMB12 + DAS12		0.29 (0.06 to 2.99)	–9.63 (–46.10 to 4.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.95 (0.23 to 9.36)	–0.71 (–36.53 to 14.96)
DCV24 + ASU24		0.17 (0.03 to 2.01)	–11.31 (–47.86 to 1.73)
DCV12 + SOF12		0.51 (0.05 to 6.45)	–6.20 (–42.18 to 17.12)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	3.60 (1.43 to 7.96)	12.45 (1.77 to 36.09)
SOF12 + LDV12 + RBV12		1.49 (0.75 to 2.97)	2.22 (–1.61 to 8.15)
SOF24 + LDV24 + RBV24		1.86 (0.94 to 3.69)	4.04 (–0.37 to 11.22)
T12 PR24-48 RGT q8		6.03 (2.90 to 11.99)	23.81 (13.00 to 36.86)
T12 PR24-48 RGT q12		5.67 (2.46 to 11.81)	22.11 (9.51 to 37.83)
T12 PR48 q8		9.54 (4.52 to 19.38)	41.21 (21.44 to 63.92)
SOF12 + PR12		3.08 (1.82 to 5.37)	9.82 (3.33 to 24.82)
SOF12 PR24-48 RGT		6.08 (2.36 to 14.29)	24.28 (9.09 to 45.21)
SIM12 PR24-48 RGT		4.27 (2.13 to 8.55)	15.46 (8.42 to 23.42)
B24 PR28-48 RGT		4.24 (1.96 to 8.77)	15.26 (6.70 to 26.46)
B44 PR48		10.14 (2.09 to 28.19)	45.53 (6.59 to 84.78)
PR24		3.92 (1.36 to 9.87)	13.81 (1.61 to 44.82)
SOF24 + RBV (low dose) 24		0.25 (0.04 to 1.27)	–3.33 (–7.12 to 1.19)
PAR/RIT12 + OMB12 + DAS12		0.85 (0.28 to 2.39)	–0.71 (–5.27 to 5.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.74 (1.42 to 5.22)	8.19 (2.36 to 17.36)
DCV24 + ASU24		0.49 (0.15 to 1.55)	–2.33 (–6.68 to 1.80)
DCV12 + SOF12		1.41 (0.18 to 6.40)	1.89 (–5.23 to 23.67)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	0.41 (0.15 to 1.32)	–9.98 (–34.65 to 2.21)
SOF24 + LDV24 + RBV24		0.52 (0.18 to 1.60)	–8.24 (–32.88 to 4.33)
T12 PR24-48 RGT q8		1.64 (0.63 to 5.23)	11.05 (–14.74 to 28.53)
T12 PR24-48 RGT q12		1.54 (0.55 to 5.04)	9.36 (–17.09 to 29.02)
T12 PR48 q8		2.63 (0.94 to 8.63)	28.02 (–2.16 to 54.66)
SOF12 + PR12		0.85 (0.33 to 2.56)	–2.44 (–24.25 to 13.84)
SOF12 PR24-48 RGT		1.67 (0.55 to 6.25)	11.40 (–16.95 to 37.12)
SIM12 PR24-48 RGT		1.17 (0.45 to 3.73)	2.85 (–22.07 to 17.13)
B24 PR28-48 RGT		1.16 (0.42 to 3.78)	2.81 (–23.08 to 18.89)
B44 PR48		2.82 (0.53 to 11.13)	31.74 (–13.74 to 75.23)
PR24		1.08 (0.29 to 4.09)	1.24 (–23.87 to 32.49)
SOF24 + RBV (low dose) 24		0.07 (0.01 to 0.46)	–15.76 (–40.51 to –3.84)
PAR/RIT12 + OMB12 + DAS12		0.23 (0.06 to 0.92)	–13.07 (–38.28 to –0.55)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.75 (0.28 to 2.25)	–4.10 (–28.09 to 9.15)
DCV24 + ASU24		0.14 (0.03 to 0.59)	–14.79 (–39.97 to –2.67)
DCV12 + SOF12		0.40 (0.05 to 2.41)	–9.61 (–35.74 to 13.79)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.25 (0.65 to 2.48)	1.73 (–3.70 to 8.23)
T12 PR24-48 RGT q8		4.06 (1.82 to 8.49)	21.38 (9.39 to 34.38)
T12 PR24-48 RGT q12		3.82 (1.56 to 8.47)	19.75 (6.02 to 35.44)
T12 PR48 q8		6.48 (2.70 to 14.03)	38.77 (17.91 to 61.81)
SOF12 + PR12		2.07 (0.91 to 4.84)	7.44 (–0.83 to 23.72)
SOF12 PR24-48 RGT		4.10 (1.54 to 10.01)	21.86 (5.92 to 42.99)
SIM12 PR24-48 RGT		2.87 (1.36 to 5.98)	13.08 (4.38 to 21.56)
B24 PR28-48 RGT		2.84 (1.24 to 6.19)	12.91 (2.74 to 24.07)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B44 PR48		6.95 (1.39 to 19.84)	43.00 (3.62 to 82.55)
PR24		2.63 (0.79 to 7.90)	11.35 (–1.82 to 42.77)
SOF24 + RBV (low dose) 24		0.17 (0.02 to 0.84)	–5.57 (–11.96 to –0.97)
PAR/RIT12 + OMB12 + DAS12		0.57 (0.18 to 1.66)	–2.95 (–10.13 to 3.34)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.86 (0.79 to 4.06)	5.91 (–2.32 to 16.05)
DCV24 + ASU24		0.33 (0.10 to 1.04)	–4.59 (–11.55 to 0.18)
DCV12 + SOF12		0.94 (0.12 to 4.85)	–0.40 (–9.48 to 21.75)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	3.22 (1.50 to 6.76)	19.56 (6.88 to 33.13)
T12 PR24-48 RGT q12		3.03 (1.28 to 6.66)	17.88 (3.79 to 34.04)
T12 PR48 q8		5.12 (2.24 to 11.13)	36.77 (15.97 to 60.15)
SOF12 + PR12		1.66 (0.71 to 3.85)	5.69 (–3.51 to 21.98)
SOF12 PR24-48 RGT		3.26 (1.25 to 7.90)	19.94 (3.26 to 41.56)
SIM12 PR24-48 RGT		2.29 (1.11 to 4.76)	11.32 (1.71 to 20.15)
B24 PR28-48 RGT		2.26 (1.03 to 4.93)	11.08 (0.40 to 22.58)
B44 PR48		5.44 (1.16 to 16.03)	41.21 (1.80 to 81.37)
PR24		2.10 (0.60 to 6.31)	9.60 (–4.28 to 41.35)
SOF24 + RBV (low dose) 24		0.13 (0.02 to 0.73)	–7.37 (–15.16 to –1.87)
PAR/RIT12 + OMB12 + DAS12		0.45 (0.15 to 1.34)	–4.71 (–13.19 to 2.03)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.47 (0.64 to 3.26)	4.08 (–5.10 to 14.36)
DCV24 + ASU24		0.26 (0.08 to 0.82)	–6.39 (–14.70 to –1.01)
DCV12 + SOF12		0.75 (0.10 to 3.77)	–2.11 (–12.51 to 19.93)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.94 (0.66 to 1.25)	–1.59 (–10.08 to 7.10)
T12 PR48 q8		1.59 (0.82 to 2.97)	17.14 (–6.60 to 42.79)
SOF12 + PR12		0.51 (0.22 to 1.25)	–13.80 (–28.35 to 5.87)
SOF12 PR24-48 RGT		1.01 (0.47 to 2.08)	0.41 (–19.53 to 23.89)
SIM12 PR24-48 RGT		0.71 (0.44 to 1.19)	–8.25 (–22.07 to 3.73)
B24 PR28-48 RGT		0.70 (0.39 to 1.26)	–8.45 (–23.02 to 5.58)
B44 PR48		1.75 (0.39 to 3.99)	21.64 (–21.11 to 64.03)
PR24		0.66 (0.19 to 1.98)	–9.81 (–27.74 to 23.82)
SOF24 + RBV (low dose) 24		0.04 (0.00 to 0.23)	–27.13 (–40.45 to –15.83)
PAR/RIT12 + OMB12 + DAS12		0.14 (0.06 to 0.29)	–24.44 (–35.11 to –15.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.46 (0.22 to 0.93)	–15.39 (–29.92 to –1.45)
DCV24 + ASU24		0.08 (0.03 to 0.22)	–26.19 (–39.29 to –15.38)
DCV12 + SOF12		0.24 (0.03 to 1.08)	–21.23 (–36.75 to 2.05)
T12 PR48 q8	T12 PR24-48 RGT q12	1.70 (0.83 to 3.52)	18.82 (–6.29 to 44.94)
SOF12 + PR12		0.54 (0.23 to 1.44)	–12.07 (–28.85 to 8.50)
SOF12 PR24-48 RGT		1.08 (0.47 to 2.43)	2.27 (–19.80 to 26.55)

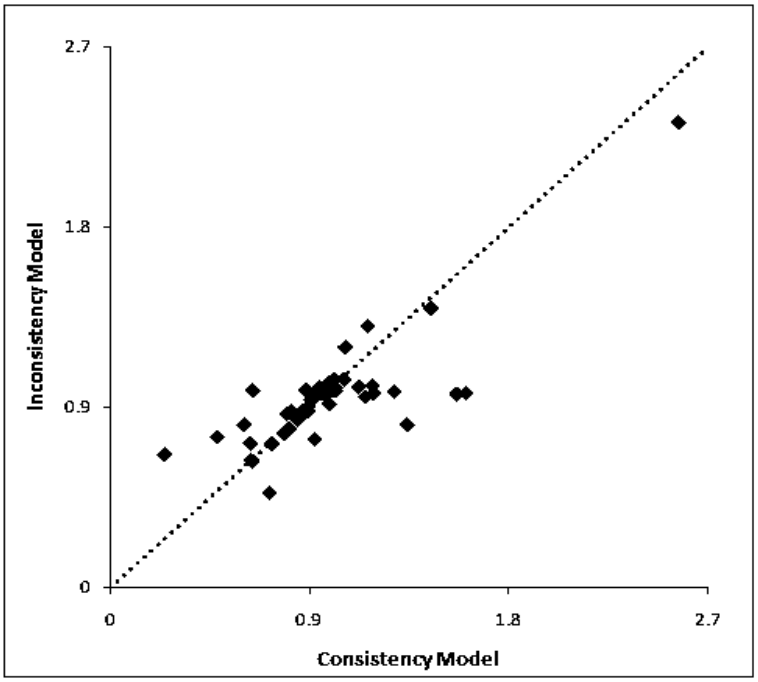
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.76 (0.44 to 1.42)	–6.55 (–22.93 to 6.91)
B24 PR28-48 RGT		0.75 (0.40 to 1.50)	–6.76 (–23.40 to 8.88)
B44 PR48		1.86 (0.39 to 4.65)	23.40 (–20.75 to 66.35)
PR24		0.70 (0.20 to 2.25)	–8.03 (–27.85 to 26.32)
SOF24 + RBV (low dose) 24		0.04 (0.01 to 0.26)	–25.43 (–41.37 to –12.60)
PAR/RIT12 + OMB12 + DAS12		0.15 (0.07 to 0.34)	–22.78 (–36.68 to –11.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.49 (0.22 to 1.10)	–13.73 (–30.56 to 1.78)
DCV24 + ASU24		0.09 (0.03 to 0.25)	–24.44 (–40.31 to –12.08)
DCV12 + SOF12		0.25 (0.03 to 1.22)	–19.40 (–37.12 to 4.48)
SOF12 + PR12	T12 PR48 q8	0.32 (0.13 to 0.79)	–30.63 (–55.04 to –6.84)
SOF12 PR24-48 RGT		0.64 (0.29 to 1.43)	–16.41 (–44.68 to 13.15)
SIM12 PR24-48 RGT		0.44 (0.25 to 0.87)	–25.65 (–49.69 to –3.67)
B24 PR28-48 RGT		0.44 (0.23 to 0.88)	–25.74 (–50.25 to –3.43)
B44 PR48		1.11 (0.24 to 2.65)	4.95 (–44.17 to 51.76)
PR24		0.41 (0.12 to 1.25)	–26.43 (–53.63 to 8.47)
SOF24 + RBV (low dose) 24		0.03 (0.00 to 0.15)	–44.51 (–67.27 to –24.40)
PAR/RIT12 + OMB12 + DAS12		0.09 (0.03 to 0.25)	–41.77 (–64.84 to –21.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.29 (0.15 to 0.53)	–32.59 (–53.88 to –14.10)
DCV24 + ASU24		0.05 (0.02 to 0.15)	–43.55 (–66.54 to –23.33)
DCV12 + SOF12		0.15 (0.02 to 0.54)	–37.65 (–57.53 to –18.62)
SOF12 PR24-48 RGT	SOF12 + PR12	1.98 (0.69 to 5.27)	14.05 (–8.24 to 37.09)
SIM12 PR24-48 RGT		1.39 (0.59 to 3.19)	5.62 (–12.76 to 16.56)
B24 PR28-48 RGT		1.38 (0.55 to 3.29)	5.37 (–13.30 to 18.34)
B44 PR48		3.22 (0.64 to 10.32)	34.61 (–7.66 to 77.45)
PR24		1.27 (0.50 to 2.94)	3.77 (–9.37 to 28.22)
SOF24 + RBV (low dose) 24		0.08 (0.01 to 0.39)	–13.12 (–29.48 to –5.20)
PAR/RIT12 + OMB12 + DAS12		0.27 (0.08 to 0.84)	–10.48 (–27.88 to –1.24)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.89 (0.39 to 2.03)	–1.52 (–17.64 to 8.82)
DCV24 + ASU24		0.16 (0.04 to 0.55)	–12.15 (–29.60 to –3.45)
DCV12 + SOF12		0.45 (0.05 to 2.30)	–7.46 (–26.31 to 13.98)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.70 (0.35 to 1.50)	–8.74 (–30.99 to 8.21)
B24 PR28-48 RGT		0.69 (0.32 to 1.55)	–8.82 (–31.48 to 9.33)
B44 PR48		1.70 (0.35 to 4.87)	20.76 (–25.59 to 66.59)
PR24		0.65 (0.17 to 2.15)	–9.85 (–35.18 to 24.63)
SOF24 + RBV (low dose) 24		0.04 (0.01 to 0.26)	–27.53 (–48.08 to –12.55)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.14 (0.05 to 0.43)	–24.91 (–45.66 to –9.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.45 (0.19 to 1.12)	–15.77 (–38.28 to 2.18)
DCV24 + ASU24		0.08 (0.02 to 0.26)	–26.66 (–47.14 to –11.80)
DCV12 + SOF12		0.24 (0.03 to 1.18)	–21.48 (–43.13 to 3.70)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.99 (0.57 to 1.68)	–0.15 (–10.53 to 11.61)
B44 PR48		2.45 (0.57 to 5.49)	29.78 (–9.91 to 70.85)
PR24		0.92 (0.27 to 2.70)	–1.68 (–16.91 to 31.46)
SOF24 + RBV (low dose) 24		0.06 (0.01 to 0.32)	–18.86 (–26.73 to –11.22)
PAR/RIT12 + OMB12 + DAS12		0.20 (0.07 to 0.50)	–16.19 (–24.21 to –8.29)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.65 (0.31 to 1.25)	–7.13 (–17.10 to 4.30)
DCV24 + ASU24		0.12 (0.05 to 0.27)	–17.82 (–24.81 to –11.99)
DCV12 + SOF12		0.33 (0.05 to 1.52)	–13.31 (–23.76 to 9.47)
B44 PR48	B24 PR28-48 RGT	2.46 (0.55 to 6.05)	29.89 (–10.74 to 71.65)
PR24		0.94 (0.26 to 2.85)	–1.29 (–18.15 to 31.77)
SOF24 + RBV (low dose) 24		0.06 (0.01 to 0.34)	–18.63 (–29.85 to –9.39)
PAR/RIT12 + OMB12 + DAS12		0.20 (0.07 to 0.54)	–15.99 (–27.04 to –6.63)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.65 (0.30 to 1.40)	–6.98 (–19.67 to 5.76)
DCV24 + ASU24		0.12 (0.04 to 0.33)	–17.64 (–28.71 to –9.15)
DCV12 + SOF12		0.33 (0.05 to 1.56)	–13.02 (–25.83 to 9.53)
PR24	B44 PR48	0.40 (0.09 to 2.23)	–29.04 (–75.48 to 21.00)
SOF24 + RBV (low dose) 24		0.03 (0.00 to 0.21)	–48.76 (–87.50 to –10.24)
PAR/RIT12 + OMB12 + DAS12		0.08 (0.02 to 0.45)	–46.28 (–85.21 to –7.48)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.26 (0.10 to 1.32)	–37.06 (–77.77 to 4.06)
DCV24 + ASU24		0.05 (0.01 to 0.26)	–47.96 (–86.62 to –9.64)
DCV12 + SOF12		0.14 (0.02 to 1.13)	–42.39 (–83.20 to 2.03)
SOF24 + RBV (low dose) 24	PR24	0.06 (0.01 to 0.34)	–17.15 (–48.34 to –4.45)
PAR/RIT12 + OMB12 + DAS12		0.22 (0.05 to 0.92)	–14.44 (–46.98 to –0.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.70 (0.23 to 2.33)	–5.44 (–36.40 to 9.21)
DCV24 + ASU24		0.13 (0.03 to 0.61)	–16.15 (–48.61 to –2.29)
DCV12 + SOF12		0.36 (0.04 to 2.52)	–11.15 (–44.14 to 13.46)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	3.39 (0.50 to 31.87)	2.60 (–2.76 to 8.60)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		11.22 (2.00 to 97.49)	11.56 (4.45 to 21.77)
DCV24 + ASU24		2.02 (0.28 to 20.02)	1.06 (–4.12 to 4.83)
DCV12 + SOF12		5.64 (0.44 to 63.09)	5.33 (–1.90 to 27.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	3.26 (1.12 to 9.73)	8.90 (0.92 to 19.48)
DCV24 + ASU24		0.59 (0.15 to 2.21)	–1.59 (–7.40 to 2.58)
DCV12 + SOF12		1.69 (0.19 to 9.73)	2.65 (–5.71 to 25.00)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.18 (0.06 to 0.55)	–10.54 (–21.08 to –3.47)
DCV12 + SOF12		0.52 (0.07 to 2.32)	–5.96 (–17.83 to 15.11)
DCV12 + SOF12	DCV24 + ASU24	2.82 (0.34 to 17.84)	4.21 (–2.49 to 26.70)
Random effect model	Residual deviance	62.47 vs. 64 data points	
	Deviance information criteria	371.62	
Fixed effect model	Residual deviance	63.66 vs. 64 data points	
	Deviance information criteria	371.027	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 40: RASH-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Anemia

TABLE 142: ANEMIA TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.69 (0.36 to 1.31)	–6.48 (–14.21 to 6.41)
SOF24 + RBV24		1.26 (0.48 to 2.53)	5.59 (–11.27 to 31.50)
SOF12 + LDV12		0.06 (0.02 to 0.13)	–20.09 (–23.39 to –16.83)
SOF8 + LDV8 + RBV8		0.36 (0.09 to 1.43)	–13.66 (–20.25 to 8.98)
SOF12 + LDV12 + RBV12		0.66 (0.34 to 1.20)	–7.20 (–14.56 to 4.20)
SOF24 + LDV24 + RBV24		0.59 (0.28 to 1.11)	–8.85 (–15.90 to 2.36)
T12 PR24-48 RGT q8		1.87 (1.32 to 2.50)	18.67 (6.74 to 31.67)
T12 PR24-48 RGT q12		2.06 (1.36 to 2.88)	22.69 (7.50 to 39.52)
T12 PR48 q8		1.13 (0.46 to 2.29)	2.81 (–12.18 to 26.11)
SOF12 + PR12		1.49 (0.80 to 2.45)	10.48 (–4.31 to 30.04)
SOF12 PR24-48 RGT		0.88 (0.41 to 1.73)	–2.67 (–13.25 to 14.68)
SIM12 PR24-48 RGT		0.82 (0.59 to 1.12)	–3.76 (–9.13 to 2.45)
B24 PR28-48 RGT		1.82 (1.27 to 2.44)	17.40 (5.70 to 30.40)
B44 PR48		1.58 (0.75 to 2.80)	12.44 (–5.41 to 36.75)
PR24		0.97 (0.41 to 2.07)	–0.61 (–12.85 to 21.90)
SOF24 + RBV (low dose) 24		0.82 (0.32 to 1.74)	–3.85 (–14.94 to 15.48)
PAR/RIT12 + OMB12 + DAS12		0.35 (0.14 to 0.75)	–13.93 (–18.88 to –5.35)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.38 (0.15 to 0.84)	–13.11 (–19.30 to –3.33)
DCV12 + SOF12		0.09 (0.01 to 0.70)	–19.18 (–23.34 to –6.47)
SOF24 + RBV24	SOF12 + RBV12	1.79 (0.66 to 4.11)	11.71 (–6.62 to 36.50)
SOF12 + LDV12		0.08 (0.03 to 0.21)	–13.50 (–26.03 to –6.53)
SOF8 + LDV8 + RBV8		0.52 (0.12 to 2.32)	–6.74 (–20.86 to 15.06)
SOF12 + LDV12 + RBV12		0.95 (0.41 to 2.20)	–0.64 (–14.11 to 11.84)
SOF24 + LDV24 + RBV24		0.85 (0.34 to 2.09)	–2.22 (–15.79 to 10.85)
T12 PR24-48 RGT q8		2.68 (1.31 to 5.48)	24.84 (7.53 to 40.24)
T12 PR24-48 RGT q12		2.95 (1.40 to 6.03)	28.82 (9.31 to 47.55)
T12 PR48 q8		1.60 (0.57 to 4.02)	9.00 (–9.19 to 32.28)
SOF12 + PR12		2.15 (1.07 to 3.86)	16.75 (1.37 to 33.16)
SOF12 PR24-48 RGT		1.26 (0.46 to 3.19)	3.82 (–12.74 to 22.11)
SIM12 PR24-48 RGT		1.18 (0.59 to 2.38)	2.69 (–10.72 to 11.88)
B24 PR28-48 RGT		2.61 (1.27 to 5.29)	23.69 (6.41 to 38.96)
B44 PR48		2.28 (0.87 to 5.41)	18.52 (–2.84 to 43.74)
PR24		1.39 (0.77 to 2.41)	5.72 (–3.57 to 21.65)
SOF24 + RBV (low dose) 24		1.16 (0.45 to 2.68)	2.37 (–11.21 to 20.19)
PAR/RIT12 + OMB12 + DAS12		0.50 (0.17 to 1.35)	–7.31 (–20.75 to 3.39)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.55 (0.20 to 1.41)	–6.41 (–19.80 to 4.12)
DCV12 + SOF12		0.12 (0.01 to 1.08)	–12.32 (–25.12 to 0.96)
SOF12 + LDV12	SOF24 + RBV24	0.04 (0.01 to 0.16)	–25.66 (–51.35 to –9.02)
SOF8 + LDV8 + RBV8		0.29 (0.06 to 1.55)	–18.05 (–45.01 to 8.51)
SOF12 + LDV12 + RBV12		0.53 (0.22 to 1.46)	–12.41 (–38.13 to 5.81)
SOF24 + LDV24 + RBV24		0.47 (0.18 to 1.41)	–14.00 (–40.24 to 5.13)
T12 PR24-48 RGT q8		1.49 (0.68 to 4.04)	12.98 (–15.52 to 35.45)
T12 PR24-48 RGT q12		1.63 (0.73 to 4.48)	16.82 (–12.70 to 41.93)
T12 PR48 q8		0.91 (0.29 to 2.83)	–2.45 (–32.20 to 24.62)
SOF12 + PR12		1.19 (0.48 to 3.35)	5.00 (–23.80 to 29.01)
SOF12 PR24-48 RGT		0.70 (0.24 to 2.26)	–7.79 (–36.82 to 15.95)
SIM12 PR24-48 RGT		0.65 (0.31 to 1.79)	–9.38 (–35.46 to 8.61)
B24 PR28-48 RGT		1.43 (0.65 to 3.94)	11.65 (–16.99 to 33.67)
B44 PR48		1.26 (0.45 to 3.89)	7.01 (–25.62 to 36.82)
PR24		0.78 (0.29 to 2.32)	–5.81 (–31.68 to 19.06)
SOF24 + RBV (low dose) 24		0.66 (0.31 to 1.32)	–8.65 (–29.10 to 5.56)
PAR/RIT12 + OMB12 + DAS12		0.27 (0.09 to 0.94)	–19.30 (–45.36 to –0.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.31 (0.10 to 1.01)	–18.37 (–44.74 to 0.18)
DCV12 + SOF12		0.07 (0.00 to 0.71)	–24.12 (–50.05 to –4.23)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	6.54 (2.19 to 20.41)	6.39 (1.18 to 27.82)
SOF12 + LDV12 + RBV12		11.97 (4.45 to 33.98)	12.93 (6.03 to 23.97)
SOF24 + LDV24 + RBV24		10.50 (3.86 to 30.92)	11.27 (4.87 to 22.26)
T12 PR24-48 RGT q8		33.68 (13.23 to 88.38)	38.84 (26.09 to 52.39)
T12 PR24-48 RGT q12		36.90 (14.12 to 99.88)	42.87 (27.09 to 60.05)
T12 PR48 q8		19.78 (7.22 to 55.16)	22.84 (9.05 to 45.30)
SOF12 + PR12		26.17 (11.76 to 65.24)	30.61 (16.20 to 49.42)
SOF12 PR24-48 RGT		15.86 (4.73 to 53.86)	17.51 (7.52 to 33.96)
SIM12 PR24-48 RGT		14.89 (6.03 to 37.43)	16.28 (11.11 to 22.56)
B24 PR28-48 RGT		32.60 (12.81 to 84.22)	37.55 (25.29 to 51.00)
B44 PR48		28.71 (8.86 to 86.74)	32.60 (14.94 to 56.46)
PR24		17.35 (5.92 to 55.61)	19.41 (7.70 to 41.64)
SOF24 + RBV (low dose) 24		14.84 (4.41 to 44.90)	16.25 (5.64 to 35.12)
PAR/RIT12 + OMB12 + DAS12		6.24 (1.82 to 20.88)	6.10 (1.47 to 14.89)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.78 (2.62 to 18.20)	6.88 (2.30 to 15.93)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + SOF12		1.53 (0.08 to 14.99)	0.59 (–1.73 to 13.72)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.87 (0.43 to 7.56)	6.18 (–15.84 to 18.30)
SOF24 + LDV24 + RBV24		1.62 (0.39 to 6.93)	4.47 (–16.62 to 16.98)
T12 PR24-48 RGT q8		5.21 (1.24 to 20.69)	31.63 (6.50 to 47.03)
T12 PR24-48 RGT q12		5.70 (1.35 to 23.16)	35.54 (9.05 to 53.86)
T12 PR48 q8		3.04 (0.70 to 13.71)	15.13 (–7.46 to 38.83)
SOF12 + PR12		4.07 (1.04 to 16.40)	22.84 (1.00 to 42.23)
SOF12 PR24-48 RGT		2.40 (0.52 to 11.41)	10.18 (–12.80 to 28.86)
SIM12 PR24-48 RGT		2.29 (0.58 to 8.97)	9.67 (–12.37 to 18.47)
B24 PR28-48 RGT		5.04 (1.22 to 20.15)	30.33 (6.00 to 45.50)
B44 PR48		4.31 (0.90 to 19.40)	24.97 (–2.35 to 50.85)
PR24		2.65 (0.55 to 12.62)	12.22 (–11.46 to 35.74)
SOF24 + RBV (low dose) 24		2.27 (0.44 to 10.35)	9.05 (–13.68 to 28.94)
PAR/RIT12 + OMB12 + DAS12		0.95 (0.18 to 4.52)	–0.38 (–22.63 to 10.06)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.26 to 4.48)	0.24 (–20.23 to 10.69)
DCV12 + SOF12		0.23 (0.01 to 3.03)	–5.18 (–27.81 to 8.22)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.89 (0.46 to 1.65)	–1.51 (–10.60 to 7.41)
T12 PR24-48 RGT q8		2.83 (1.40 to 5.75)	25.71 (8.84 to 41.06)
T12 PR24-48 RGT q12		3.10 (1.50 to 6.47)	29.75 (10.44 to 48.22)
T12 PR48 q8		1.70 (0.59 to 4.40)	9.72 (–8.41 to 33.42)
SOF12 + PR12		2.23 (0.99 to 4.90)	17.36 (–0.30 to 37.69)
SOF12 PR24-48 RGT		1.33 (0.51 to 3.50)	4.54 (–10.62 to 22.85)
SIM12 PR24-48 RGT		1.24 (0.63 to 2.52)	3.37 (–8.89 to 12.57)
B24 PR28-48 RGT		2.72 (1.37 to 5.62)	24.36 (8.14 to 39.64)
B44 PR48		2.38 (0.92 to 5.72)	19.46 (–1.49 to 44.60)
PR24		1.46 (0.54 to 3.75)	6.39 (–9.04 to 28.59)
SOF24 + RBV (low dose) 24		1.23 (0.47 to 2.87)	3.23 (–10.02 to 21.35)
PAR/RIT12 + OMB12 + DAS12		0.52 (0.18 to 1.43)	–6.59 (–18.86 to 4.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.58 (0.19 to 1.63)	–5.75 (–18.44 to 5.87)
DCV12 + SOF12		0.13 (0.01 to 1.18)	–11.63 (–23.36 to 2.08)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	3.18 (1.51 to 6.95)	27.12 (10.62 to 42.65)
T12 PR24-48 RGT q12		3.49 (1.60 to 7.71)	31.07 (12.14 to 49.62)
T12 PR48 q8		1.90 (0.63 to 5.26)	11.25 (–7.14 to 35.04)
SOF12 + PR12		2.53 (1.05 to 5.87)	19.01 (1.03 to 38.88)
SOF12 PR24-48 RGT		1.50 (0.54 to 4.08)	6.08 (–9.30 to 24.12)
SIM12 PR24-48 RGT		1.40 (0.67 to 3.09)	5.00 (–7.38 to 14.20)
B24 PR28-48 RGT		3.08 (1.49 to 6.71)	25.90 (9.73 to 40.67)
B44 PR48		2.69 (1.00 to 6.74)	21.04 (–0.09 to 46.13)

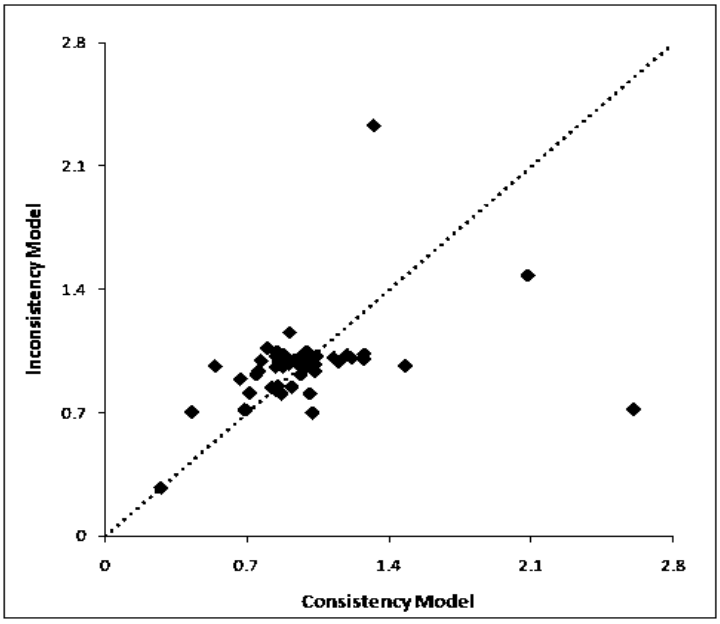
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PR24		1.66 (0.58 to 4.46)	8.03 (–7.92 to 30.45)
SOF24 + RBV (low dose) 24		1.39 (0.49 to 3.73)	4.74 (–9.48 to 24.47)
PAR/RIT12 + OMB12 + DAS12		0.59 (0.19 to 1.68)	–5.00 (–17.21 to 5.35)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.65 (0.22 to 1.90)	–4.36 (–16.55 to 7.14)
DCV12 + SOF12		0.14 (0.01 to 1.27)	–9.97 (–21.81 to 2.82)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.10 (0.86 to 1.39)	3.98 (–5.52 to 14.44)
T12 PR48 q8		0.61 (0.23 to 1.32)	–15.64 (–36.06 to 10.49)
SOF12 + PR12		0.79 (0.40 to 1.45)	–8.20 (–28.17 to 14.32)
SOF12 PR24-48 RGT		0.47 (0.21 to 1.02)	–21.24 (–38.53 to 0.81)
SIM12 PR24-48 RGT		0.44 (0.28 to 0.70)	–22.40 (–36.62 to –8.88)
B24 PR28-48 RGT		0.97 (0.62 to 1.54)	–1.27 (–18.56 to 16.55)
B44 PR48		0.85 (0.39 to 1.66)	–6.12 (–28.74 to 21.55)
PR24		0.52 (0.21 to 1.17)	–18.98 (–37.33 to 5.91)
SOF24 + RBV (low dose) 24		0.44 (0.16 to 1.01)	–22.22 (–40.10 to 0.39)
PAR/RIT12 + OMB12 + DAS12		0.19 (0.09 to 0.35)	–32.26 (–42.91 to –21.78)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.21 (0.08 to 0.48)	–31.49 (–46.22 to –15.96)
DCV12 + SOF12		0.05 (0.00 to 0.39)	–37.39 (–51.39 to –20.26)
T12 PR48 q8	T12 PR24-48 RGT q12	0.55 (0.21 to 1.24)	–19.49 (–42.75 to 8.00)
SOF12 + PR12		0.73 (0.36 to 1.36)	–12.09 (–34.40 to 11.91)
SOF12 PR24-48 RGT		0.43 (0.19 to 0.96)	–25.07 (–45.92 to –1.45)
SIM12 PR24-48 RGT		0.40 (0.25 to 0.67)	–26.42 (–44.17 to –10.07)
B24 PR28-48 RGT		0.88 (0.54 to 1.46)	–5.28 (–25.79 to 14.55)
B44 PR48		0.77 (0.34 to 1.56)	–10.04 (–35.26 to 18.84)
PR24		0.47 (0.19 to 1.12)	–22.84 (–44.09 to 4.11)
SOF24 + RBV (low dose) 24		0.40 (0.15 to 0.94)	–26.13 (–46.67 to –2.04)
PAR/RIT12 + OMB12 + DAS12		0.17 (0.08 to 0.33)	–36.30 (–51.16 to –22.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.19 (0.07 to 0.45)	–35.41 (–53.68 to –17.25)
DCV12 + SOF12		0.04 (0.00 to 0.36)	–41.37 (–58.86 to –21.46)
SOF12 + PR12	T12 PR48 q8	1.32 (0.54 to 3.63)	7.55 (–19.00 to 31.73)
SOF12 PR24-48 RGT		0.79 (0.26 to 2.53)	–5.03 (–31.34 to 18.42)
SIM12 PR24-48 RGT		0.73 (0.33 to 1.84)	–6.55 (–30.33 to 9.11)
B24 PR28-48 RGT		1.59 (0.73 to 4.09)	14.33 (–11.74 to 34.87)
B44 PR48		1.42 (0.50 to 3.86)	9.88 (–20.14 to 37.95)
PR24		0.86 (0.30 to 2.69)	–3.26 (–28.05 to 22.78)
SOF24 + RBV (low dose) 24		0.73 (0.23 to 2.32)	–6.55 (–31.26 to 16.77)
PAR/RIT12 + OMB12 + DAS12		0.31 (0.10 to 1.00)	–16.51 (–39.58 to 0.02)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.34 (0.15 to 0.87)	–15.56 (–36.29 to –1.78)
DCV12 + SOF12		0.08 (0.00 to 0.53)	–21.01 (–42.51 to –7.50)
SOF12 PR24-48 RGT	SOF12 + PR12	0.59 (0.24 to 1.47)	–12.63 (–35.28 to 9.67)
SIM12 PR24-48 RGT		0.56 (0.33 to 1.01)	–14.08 (–32.69 to 0.25)
B24 PR28-48 RGT		1.22 (0.67 to 2.41)	6.92 (–15.45 to 26.73)
B44 PR48		1.07 (0.43 to 2.45)	2.22 (–25.47 to 30.57)
PR24		0.65 (0.29 to 1.51)	–10.75 (–29.94 to 12.05)
SOF24 + RBV (low dose) 24		0.55 (0.21 to 1.37)	–13.97 (–34.50 to 7.99)
PAR/RIT12 + OMB12 + DAS12		0.23 (0.08 to 0.63)	–24.04 (–43.86 to –7.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.26 (0.10 to 0.63)	–23.17 (–42.64 to –7.45)
DCV12 + SOF12		0.06 (0.00 to 0.51)	–29.04 (–49.09 to –10.32)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.93 (0.43 to 2.17)	–1.29 (–19.27 to 11.39)
B24 PR28-48 RGT		2.07 (0.97 to 4.59)	19.70 (–0.89 to 37.05)
B44 PR48		1.78 (0.65 to 4.70)	14.51 (–10.21 to 42.09)
PR24		1.11 (0.36 to 3.22)	2.05 (–19.77 to 26.73)
SOF24 + RBV (low dose) 24		0.92 (0.28 to 2.78)	–1.45 (–21.50 to 20.91)
PAR/RIT12 + OMB12 + DAS12		0.39 (0.13 to 1.16)	–10.99 (–28.75 to 1.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.43 (0.15 to 1.30)	–10.43 (–28.17 to 3.37)
DCV12 + SOF12		0.10 (0.01 to 0.94)	–16.21 (–33.06 to –0.77)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	2.20 (1.38 to 3.43)	21.14 (7.91 to 35.31)
B44 PR48		1.93 (0.87 to 3.73)	16.27 (–2.70 to 40.95)
PR24		1.18 (0.49 to 2.67)	3.05 (–10.15 to 25.89)
SOF24 + RBV (low dose) 24		1.00 (0.37 to 2.25)	0.06 (–12.77 to 19.57)
PAR/RIT12 + OMB12 + DAS12		0.42 (0.17 to 0.98)	–10.10 (–17.71 to –0.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.19 to 1.08)	–9.24 (–17.23 to 1.19)
DCV12 + SOF12		0.10 (0.01 to 0.88)	–15.18 (–22.37 to –2.00)
B44 PR48	B24 PR28-48 RGT	0.87 (0.40 to 1.71)	–4.99 (–27.27 to 22.40)
PR24		0.53 (0.22 to 1.23)	–17.85 (–35.94 to 7.69)
SOF24 + RBV (low dose) 24		0.46 (0.17 to 1.04)	–20.87 (–38.72 to 1.27)
PAR/RIT12 + OMB12 + DAS12		0.19 (0.08 to 0.45)	–31.09 (–45.20 to –16.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.21 (0.08 to 0.50)	–30.23 (–44.91 to –15.02)
DCV12 + SOF12		0.05 (0.00 to 0.39)	–36.05 (–50.11 to –19.89)
PR24	B44 PR48	0.62 (0.22 to 1.74)	–12.76 (–39.49 to 15.30)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		0.52 (0.16 to 1.49)	–16.01 (–43.27 to 9.93)
PAR/RIT12 + OMB12 + DAS12		0.22 (0.07 to 0.63)	–25.95 (–50.93 to –6.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.24 (0.08 to 0.71)	–25.33 (–49.81 to –5.58)
DCV12 + SOF12		0.05 (0.00 to 0.50)	–30.92 (–55.68 to –10.64)
SOF24 + RBV (low dose) 24	PR24	0.84 (0.29 to 2.31)	–3.22 (–25.50 to 16.22)
PAR/RIT12 + OMB12 + DAS12		0.36 (0.11 to 1.11)	–13.00 (–35.55 to 1.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.40 (0.13 to 1.16)	–12.13 (–34.91 to 1.80)
DCV12 + SOF12		0.09 (0.00 to 0.87)	–18.00 (–40.41 to –1.62)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	0.42 (0.13 to 1.47)	–9.87 (–29.44 to 3.96)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.48 (0.14 to 1.48)	–8.91 (–28.15 to 4.18)
DCV12 + SOF12		0.11 (0.01 to 1.08)	–14.99 (–34.33 to 0.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.11 (0.33 to 3.72)	0.78 (–9.07 to 11.28)
DCV12 + SOF12		0.25 (0.01 to 2.54)	–5.04 (–14.02 to 8.02)
DCV12 + SOF12	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.23 (0.01 to 1.91)	–5.67 (–15.39 to 6.10)
Random effect model	Residual deviance	62.48 vs. 64 data points	
	Deviance information criteria	367.889	
Fixed effect model	Residual deviance	63.13 vs. 64 data points	
	Deviance information criteria	366.667	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 41: ANEMIA-NAIVE: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Treatment-Experienced
Depression

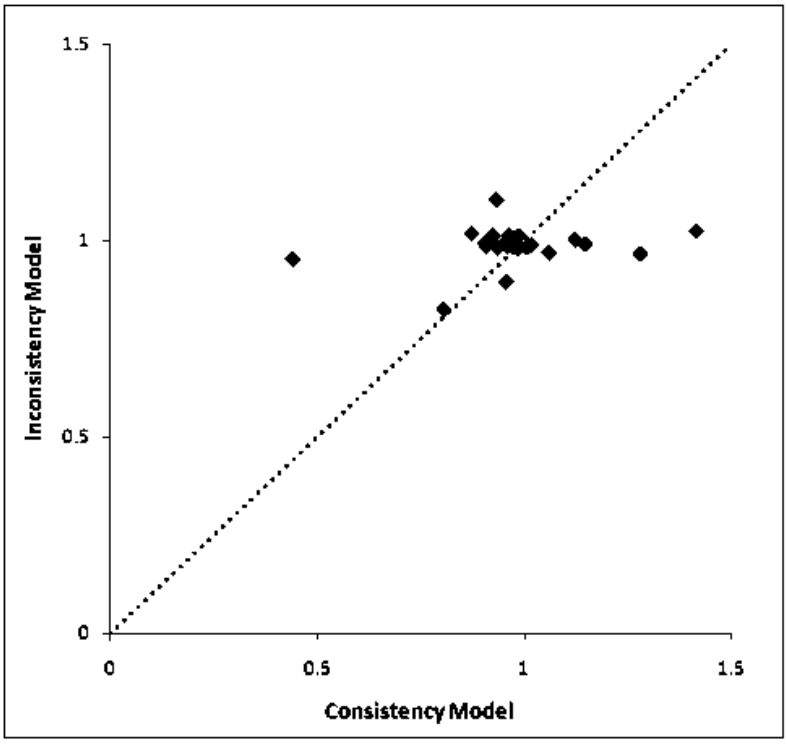
TABLE 143: DEPRESSION TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	0.67 (0.35 to 1.26)	–4.33 (–9.68 to 3.10)
SIM12 PR48		0.91 (0.46 to 1.77)	–1.15 (–8.07 to 9.09)
B32 PR36-48 RGT		0.95 (0.42 to 1.99)	–0.68 (–8.28 to 11.58)
SOF12 + RBV12		0.46 (0.14 to 1.31)	–7.01 (–12.85 to 3.86)
SOF24 + RBV24		0.17 (0.01 to 0.99)	–10.65 (–15.36 to –0.15)
SOF12 + LDV12 + RBV12		0.64 (0.22 to 1.65)	–4.72 (–11.38 to 7.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.07 to 0.93)	–9.42 (–14.25 to –0.89)
DCV24 + ASU24		0.11 (0.02 to 0.50)	–11.49 (–15.62 to –5.97)
SIM12 PR48	T12 PR48 q8	1.36 (0.70 to 2.65)	3.09 (–3.58 to 11.69)
B32 PR36-48 RGT		1.43 (0.50 to 3.68)	3.64 (–6.91 to 16.33)
SOF12 + RBV12		0.69 (0.18 to 2.27)	–2.64 (–11.20 to 8.40)
SOF24 + RBV24		0.25 (0.02 to 1.69)	–6.25 (–14.15 to 4.74)
SOF12 + LDV12 + RBV12		0.95 (0.30 to 2.79)	–0.40 (–9.00 to 12.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.40 (0.12 to 1.15)	–4.95 (–10.61 to 1.31)
DCV24 + ASU24		0.17 (0.03 to 0.84)	–7.06 (–14.57 to –1.05)
B32 PR36-48 RGT	SIM12 PR48	1.04 (0.38 to 2.70)	0.44 (–11.70 to 13.58)
SOF12 + RBV12		0.51 (0.13 to 1.59)	–5.67 (–16.41 to 5.27)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24		0.18 (0.01 to 1.25)	–9.38 (–19.73 to 2.17)
SOF12 + LDV12 + RBV12		0.71 (0.23 to 2.00)	–3.37 (–14.26 to 9.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.30 (0.07 to 1.06)	–8.14 (–17.70 to 0.56)
DCV24 + ASU24		0.12 (0.02 to 0.61)	–10.28 (–20.20 to –3.13)
SOF12 + RBV12	B32 PR36-48 RGT	0.49 (0.18 to 1.15)	–5.95 (–15.95 to 1.56)
SOF24 + RBV24		0.18 (0.02 to 0.88)	–9.53 (–20.44 to –1.25)
SOF12 + LDV12 + RBV12		0.68 (0.19 to 2.25)	–3.96 (–17.37 to 10.09)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.28 (0.06 to 1.31)	–8.61 (–21.10 to 2.39)
DCV24 + ASU24		0.12 (0.03 to 0.41)	–10.66 (–21.00 to –4.61)
SOF24 + RBV24	SOF12 + RBV12	0.37 (0.03 to 2.42)	–3.39 (–13.51 to 5.95)
SOF12 + LDV12 + RBV12		1.38 (0.34 to 6.41)	2.22 (–9.25 to 15.23)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.59 (0.10 to 3.41)	–2.29 (–13.09 to 7.00)
DCV24 + ASU24		0.25 (0.05 to 1.20)	–4.32 (–14.15 to 0.64)
SOF12 + LDV12 + RBV12	SOF24 + RBV24	3.88 (0.50 to 55.73)	5.76 (–5.31 to 18.37)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.63 (0.16 to 26.24)	1.20 (–9.19 to 10.16)
DCV24 + ASU24		0.67 (0.08 to 9.59)	–0.61 (–10.57 to 3.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + LDV12 + RBV12	0.43 (0.08 to 2.02)	–4.53 (–17.15 to 4.68)
DCV24 + ASU24		0.17 (0.03 to 1.01)	–6.69 (–18.97 to 0.05)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.41 (0.05 to 3.19)	–1.94 (–10.56 to 3.45)
Random effect model	Residual deviance	23.48 vs. 24 data points	
	Deviance information criteria	135.299	
Fixed effect model	Residual deviance	23.98 vs. 24 data points	
	Deviance information criteria	135.244	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 42: DEPRESSION TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Rash

TABLE 144: RASH TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	0.58 (0.04 to 3.80)	–5.40 (–13.58 to 35.98)
SOF12 + LDV12		0.17 (0.04 to 0.56)	–10.87 (–14.21 to –5.41)
SOF12 + LDV12 + RBV12		0.64 (0.33 to 1.32)	–4.66 (–9.53 to 3.92)
SOF24 + LDV24 + RBV24		0.78 (0.34 to 1.88)	–2.92 (–9.11 to 11.25)
T12 PR48 q8		2.22 (1.40 to 3.80)	16.07 (5.40 to 34.87)
SIM12 PR24-48 RGT		1.02 (0.44 to 2.12)	0.26 (–7.30 to 14.31)
SIM12 PR48		1.44 (0.82 to 2.58)	5.85 (–2.46 to 19.61)
SOF12 + SIM12 + RBV12		1.79 (0.36 to 4.80)	10.52 (–8.53 to 48.61)
B32 PR36-48 RGT		2.19 (1.07 to 3.94)	15.88 (0.90 to 35.95)
SOF12 + RBV12		1.11 (0.38 to 2.73)	1.48 (–8.54 to 21.68)
SOF24 + RBV24		1.26 (0.27 to 3.66)	3.43 (–9.84 to 33.55)
PAR/RIT12 + OMB12 + DAS12		0.06 (0.00 to 0.36)	–12.27 (–15.22 to –7.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.61 (0.24 to 1.81)	–5.16 (–10.50 to 10.35)
DCV24 + ASU24		0.27 (0.07 to 0.88)	–9.58 (–13.58 to –1.46)
DCV24 + ASU24 + PR24		2.62 (0.99 to 4.94)	21.54 (–0.09 to 48.90)
SOF12 + PR12		1.39 (0.64 to 2.81)	5.19 (–5.00 to 21.81)
SOF12 + LDV12	SIM12 + SOF12	0.28 (0.03 to 5.20)	–5.26 (–46.40 to 3.50)
SOF12 + LDV12 + RBV12		1.12 (0.15 to 18.14)	0.91 (–40.08 to 12.14)
SOF24 + LDV24 + RBV24		1.36 (0.17 to 22.22)	2.54 (–37.70 to 17.96)
T12 PR48 q8		3.86 (0.57 to 57.92)	20.66 (–19.85 to 41.07)
SIM12 PR24-48 RGT		1.76 (0.23 to 27.34)	5.34 (–35.69 to 21.49)
SIM12 PR48		2.52 (0.36 to 38.41)	10.86 (–29.50 to 26.81)
SOF12 + SIM12 + RBV12		2.82 (0.61 to 29.09)	12.69 (–11.98 to 44.02)
B32 PR36-48 RGT		3.71 (0.57 to 49.50)	19.36 (–19.59 to 40.27)
SOF12 + RBV12		1.90 (0.24 to 27.12)	6.00 (–33.84 to 27.01)
SOF24 + RBV24		2.08 (0.21 to 35.67)	7.28 (–32.48 to 36.78)
PAR/RIT12 + OMB12 + DAS12		0.09 (0.00 to 2.75)	–6.63 (–48.00 to 1.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.08 (0.13 to 18.41)	0.61 (–39.91 to 16.48)
DCV24 + ASU24		0.46 (0.05 to 7.36)	–3.88 (–44.58 to 6.58)
DCV24 + ASU24 + PR24		4.36 (0.70 to 56.71)	24.14 (–12.64 to 50.17)
SOF12 + PR12		2.39 (0.32 to 37.63)	9.81 (–31.06 to 28.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	3.84 (1.17 to 15.70)	6.10 (0.91 to 13.88)
SOF24 + LDV24 + RBV24		4.61 (1.35 to 19.85)	7.89 (1.55 to 20.64)
T12 PR48 q8		13.42 (3.87 to 55.87)	26.99 (15.20 to 44.71)
SIM12 PR24-48 RGT		6.20 (1.39 to 28.60)	11.14 (1.93 to 24.81)
SIM12 PR48		8.75 (2.50 to 37.00)	16.66 (7.41 to 30.01)
SOF12 + SIM12 + RBV12		10.91 (1.41 to 56.78)	21.36 (1.58 to 59.24)
B32 PR36-48 RGT		13.18 (3.54 to 53.07)	26.57 (11.43 to 46.09)
SOF12 + RBV12		6.65 (1.44 to 30.74)	12.29 (1.86 to 31.66)
SOF24 + RBV24		7.46 (1.18 to 39.57)	14.18 (0.63 to 43.63)
PAR/RIT12 + OMB12 + DAS12		0.34 (0.02 to 3.14)	–1.33 (–6.18 to 2.48)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.72 (0.82 to 20.06)	5.75 (–0.82 to 20.49)
DCV24 + ASU24		1.58 (0.28 to 9.21)	1.22 (–3.87 to 8.90)
DCV24 + ASU24 + PR24		15.60 (3.44 to 64.06)	32.36 (9.94 to 59.19)
SOF12 + PR12		8.50 (1.94 to 37.97)	16.09 (4.97 to 31.95)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.21 (0.49 to 2.96)	1.72 (–6.37 to 14.10)
T12 PR48 q8		3.44 (1.61 to 7.67)	20.75 (7.89 to 37.99)
SIM12 PR24-48 RGT		1.58 (0.52 to 4.21)	4.88 (–6.52 to 19.19)
SIM12 PR48		2.24 (0.97 to 5.06)	10.49 (–0.34 to 23.45)
SOF12 + SIM12 + RBV12		2.76 (0.48 to 9.58)	14.93 (–6.16 to 53.62)
B32 PR36-48 RGT		3.38 (1.25 to 8.41)	20.29 (3.15 to 41.03)
SOF12 + RBV12		1.72 (0.48 to 5.26)	5.99 (–6.52 to 26.12)
SOF24 + RBV24		1.93 (0.36 to 6.91)	7.92 (–7.64 to 37.97)
PAR/RIT12 + OMB12 + DAS12		0.09 (0.00 to 0.58)	–7.54 (–15.71 to –2.39)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.96 (0.30 to 2.99)	–0.33 (–9.35 to 13.65)
DCV24 + ASU24		0.41 (0.09 to 1.55)	–4.78 (–13.49 to 3.44)
DCV24 + ASU24 + PR24		4.05 (1.18 to 10.14)	25.98 (2.12 to 53.45)
SOF12 + PR12		2.17 (0.74 to 5.64)	9.83 (–3.50 to 26.34)
T12 PR48 q8	SOF24 + LDV24 + RBV24	2.83 (1.12 to 7.70)	18.76 (2.41 to 36.97)
SIM12 PR24-48 RGT		1.31 (0.38 to 3.92)	3.12 (–12.51 to 17.75)
SIM12 PR48		1.84 (0.68 to 4.97)	8.59 (–6.63 to 22.64)
SOF12 + SIM12 + RBV12		2.26 (0.37 to 8.72)	12.95 (–10.44 to 51.80)
B32 PR36-48 RGT		2.79 (0.90 to 7.88)	18.35 (–1.93 to 39.98)
SOF12 + RBV12		1.41 (0.37 to 4.90)	4.12 (–12.12 to 24.63)
SOF24 + RBV24		1.61 (0.27 to 6.14)	6.04 (–13.25 to 35.77)

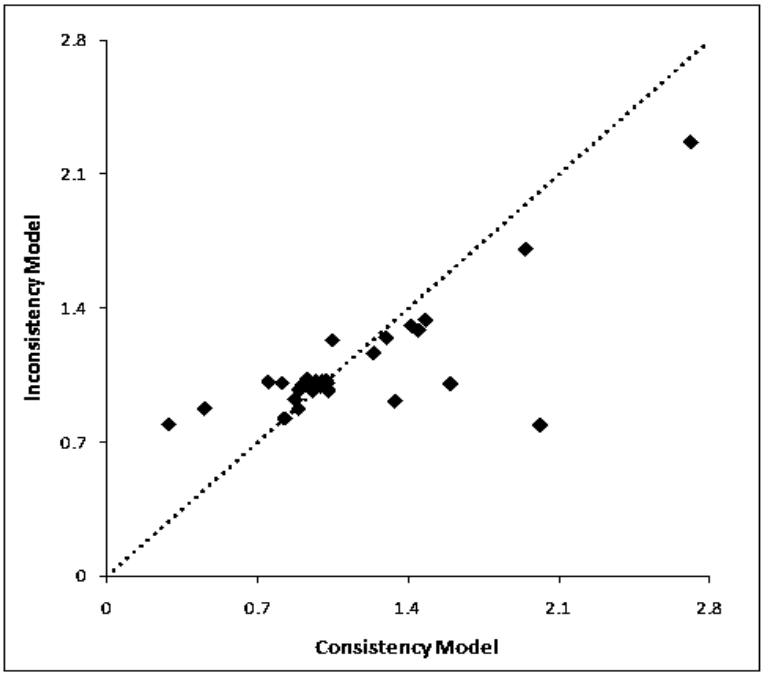
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.07 (0.00 to 0.53)	–9.34 (–22.89 to –2.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.79 (0.22 to 2.88)	–2.12 (–16.29 to 12.59)
DCV24 + ASU24		0.34 (0.07 to 1.43)	–6.47 (–20.58 to 2.81)
DCV24 + ASU24 + PR24		3.33 (0.88 to 9.67)	23.88 (–2.00 to 52.15)
SOF12 + PR12		1.81 (0.55 to 5.17)	8.03 (–9.22 to 24.79)
SIM12 PR24-48 RGT	T12 PR48 q8	0.46 (0.16 to 1.04)	–15.41 (–35.95 to 0.88)
SIM12 PR48		0.66 (0.37 to 1.04)	–9.92 (–25.61 to 0.88)
SOF12 + SIM12 + RBV12		0.80 (0.15 to 2.31)	–5.75 (–32.42 to 32.79)
B32 PR36-48 RGT		0.99 (0.42 to 1.96)	–0.42 (–23.96 to 21.92)
SOF12 + RBV12		0.50 (0.16 to 1.22)	–14.35 (–34.03 to 5.33)
SOF24 + RBV24		0.57 (0.11 to 1.70)	–12.37 (–35.50 to 17.21)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.14)	–28.35 (–45.29 to –17.62)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.28 (0.12 to 0.63)	–20.69 (–34.28 to –10.02)
DCV24 + ASU24		0.12 (0.03 to 0.39)	–25.46 (–43.21 to –13.32)
DCV24 + ASU24 + PR24		1.18 (0.39 to 2.41)	5.28 (–23.49 to 33.35)
SOF12 + PR12		0.63 (0.25 to 1.43)	–10.70 (–32.46 to 9.20)
SIM12 PR48	SIM12 PR24-48 RGT	1.41 (0.57 to 3.97)	5.43 (–10.44 to 21.29)
SOF12 + SIM12 + RBV12		1.74 (0.31 to 6.45)	9.82 (–13.82 to 49.06)
B32 PR36-48 RGT		2.13 (0.77 to 5.90)	15.22 (–5.38 to 37.36)
SOF12 + RBV12		1.08 (0.30 to 3.66)	1.06 (–15.66 to 22.26)
SOF24 + RBV24		1.23 (0.23 to 4.71)	2.94 (–16.29 to 33.78)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.43)	–12.56 (–26.15 to –3.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.60 (0.18 to 2.42)	–5.25 (–19.30 to 11.27)
DCV24 + ASU24		0.26 (0.05 to 1.11)	–9.68 (–24.07 to 0.88)
DCV24 + ASU24 + PR24		2.54 (0.76 to 7.29)	20.70 (–4.95 to 49.38)
SOF12 + PR12		1.36 (0.48 to 3.96)	4.83 (–12.14 to 22.77)
SOF12 + SIM12 + RBV12	SIM12 PR48	1.23 (0.24 to 3.73)	4.26 (–18.35 to 42.71)
B32 PR36-48 RGT		1.52 (0.67 to 3.08)	9.86 (–8.72 to 30.28)
SOF12 + RBV12		0.77 (0.25 to 1.84)	–4.33 (–19.09 to 13.87)
SOF24 + RBV24		0.87 (0.18 to 2.67)	–2.41 (–21.07 to 26.73)
PAR/RIT12 + OMB12 + DAS12		0.04 (0.00 to 0.24)	–18.11 (–31.00 to –9.43)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.43 (0.16 to 1.20)	–10.70 (–22.52 to 3.18)
DCV24 + ASU24		0.19 (0.05 to 0.59)	–15.15 (–28.14 to –5.87)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24		1.81 (0.62 to 3.84)	15.51 (–9.00 to 42.62)
SOF12 + PR12		0.97 (0.37 to 2.31)	–0.54 (–17.99 to 17.95)
B32 PR36-48 RGT	SOF12 + SIM12 + RBV12	1.23 (0.46 to 4.94)	5.33 (–29.92 to 26.49)
SOF12 + RBV12		0.63 (0.17 to 3.12)	–8.51 (–45.64 to 14.87)
SOF24 + RBV24		0.71 (0.14 to 3.84)	–6.40 (–45.48 to 23.97)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.36)	–22.72 (–61.00 to –3.37)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.35 (0.09 to 2.34)	–14.96 (–53.30 to 8.45)
DCV24 + ASU24		0.15 (0.03 to 0.85)	–19.59 (–57.37 to –0.90)
DCV24 + ASU24 + PR24		1.45 (0.59 to 4.85)	10.07 (–19.08 to 32.71)
SOF12 + PR12		0.78 (0.22 to 4.49)	–5.14 (–45.19 to 21.13)
SOF12 + RBV12	B32 PR36-48 RGT	0.51 (0.21 to 1.11)	–13.65 (–30.53 to 2.61)
SOF24 + RBV24		0.59 (0.16 to 1.42)	–11.18 (–29.98 to 11.00)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.18)	–28.10 (–47.61 to –12.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.28 (0.10 to 1.00)	–20.50 (–40.85 to –0.01)
DCV24 + ASU24		0.12 (0.04 to 0.35)	–25.07 (–43.00 to –11.46)
DCV24 + ASU24 + PR24		1.18 (0.61 to 2.00)	5.31 (–10.88 to 24.96)
SOF12 + PR12		0.64 (0.24 to 1.75)	–10.32 (–34.11 to 12.73)
SOF24 + RBV24	SOF12 + RBV12	1.13 (0.25 to 3.95)	1.82 (–19.00 to 29.10)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.40)	–13.73 (–33.07 to –3.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.56 (0.16 to 2.35)	–6.29 (–25.24 to 9.99)
DCV24 + ASU24		0.24 (0.06 to 0.92)	–10.75 (–29.51 to –0.58)
DCV24 + ASU24 + PR24		2.32 (0.83 to 6.21)	19.18 (–3.73 to 44.53)
SOF12 + PR12		1.26 (0.39 to 4.60)	3.78 (–18.46 to 23.33)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	0.04 (0.00 to 0.49)	–15.63 (–45.25 to –2.14)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.49 (0.12 to 3.11)	–8.09 (–37.78 to 10.97)
DCV24 + ASU24		0.22 (0.05 to 1.13)	–12.70 (–40.91 to 0.51)
DCV24 + ASU24 + PR24		2.01 (0.68 to 8.32)	16.54 (–10.41 to 43.44)
SOF12 + PR12		1.12 (0.30 to 6.00)	1.89 (–29.70 to 23.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	11.19 (1.72 to 174.90)	7.10 (1.62 to 21.47)
DCV24 + ASU24		4.77 (0.49 to 91.28)	2.59 (–1.72 to 10.24)
DCV24 + ASU24 + PR24		45.32 (5.66 to 810.90)	33.83 (11.37 to 60.52)
SOF12 + PR12		24.92 (3.35 to	17.50 (6.92 to 33.32)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
		469.80)	
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.43 (0.08 to 1.85)	–4.33 (–19.05 to 4.05)
DCV24 + ASU24 + PR24		4.21 (1.00 to 12.84)	26.15 (0.05 to 53.47)
SOF12 + PR12		2.29 (0.61 to 7.39)	10.12 (–7.53 to 26.91)
DCV24 + ASU24 + PR24	DCV24 + ASU24	9.49 (2.81 to 35.25)	30.70 (9.63 to 56.42)
SOF12 + PR12		5.22 (1.26 to 24.91)	14.62 (2.24 to 31.14)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.54 (0.20 to 1.76)	–16.01 (–45.56 to 11.79)
Random effect model	Residual deviance	49.87 vs. data points	
	Deviance information criteria	278.127	
Fixed effect model	Residual deviance	52.35 vs. data points	
	Deviance information criteria	278.13	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 43: RASH TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



Anemia

TABLE 145: ANEMIA TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

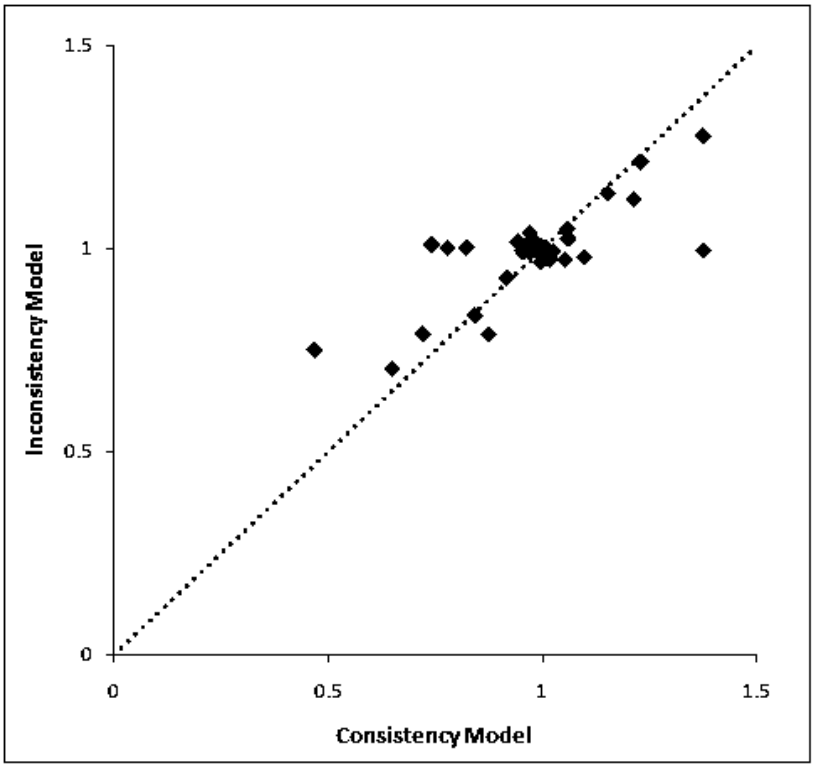
TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	0.02 (0.00 to 0.11)	–18.42 (–21.51 to –15.38)
SOF12 + LDV12 + RBV12		0.31 (0.15 to 0.59)	–12.99 (–17.27 to –7.51)
SOF24 + LDV24 + RBV24		0.51 (0.23 to 1.04)	–9.27 (–15.52 to 0.73)
T12 PR48 q8		1.94 (1.31 to 2.79)	17.88 (6.16 to 32.35)
SIM12 PR24-48 RGT		0.83 (0.45 to 1.48)	–3.14 (–10.96 to 8.88)
SIM12 PR48		0.68 (0.40 to 1.17)	–5.97 (–12.17 to 3.02)
B32 PR36-48 RGT		2.40 (1.55 to 3.59)	26.73 (10.90 to 46.41)
SOF12 + RBV12		0.70 (0.30 to 1.61)	–5.77 (–13.91 to 11.06)
SOF24 + RBV24		0.41 (0.08 to 1.35)	–11.16 (–18.49 to 6.46)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.07)	–18.73 (–21.80 to –15.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.11 to 0.66)	–13.73 (–18.13 to –6.17)
DCV24 + ASU24 + PR24		0.28 (0.10 to 0.79)	–13.67 (–18.43 to –3.92)
SOF12 + PR12		1.02 (0.56 to 1.69)	0.30 (–8.74 to 12.65)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	12.32 (3.06 to 101.00)	5.36 (2.35 to 10.23)
SOF24 + LDV24 + RBV24		20.32 (4.33 to 170.60)	9.00 (3.78 to 18.78)
T12 PR48 q8		79.12 (17.46 to 704.10)	36.28 (24.70 to 50.65)
SIM12 PR24-48 RGT		33.92 (6.74 to 314.90)	15.25 (7.66 to 27.26)
SIM12 PR48		27.93 (6.00 to 253.60)	12.40 (7.01 to 20.83)
B32 PR36-48 RGT		97.06 (21.37 to 887.50)	45.20 (29.55 to 64.31)
SOF12 + RBV12		28.27 (4.88 to 293.00)	12.65 (4.90 to 29.25)
SOF24 + RBV24		16.58 (1.77 to 180.50)	7.14 (0.75 to 24.60)
PAR/RIT12 + OMB12 + DAS12		0.37 (0.03 to 7.00)	–0.25 (–1.76 to 0.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12		11.29 (1.98 to 111.90)	4.59 (1.29 to 11.93)
DCV24 + ASU24 + PR24		11.36 (1.85 to 120.10)	4.63 (0.98 to 14.21)
SOF12 + PR12		40.96 (8.35 to 384.60)	18.70 (10.16 to 30.68)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.61 (0.68 to 3.94)	3.58 (–2.55 to 13.03)
T12 PR48 q8		6.11 (3.12 to 13.55)	30.69 (18.80 to 45.37)
SIM12 PR24-48 RGT		2.65 (1.11 to 6.84)	9.70 (0.97 to 22.24)
SIM12 PR48		2.17 (1.01 to 5.07)	6.95 (0.09 to 15.84)
B32 PR36-48 RGT		7.62 (3.59 to 17.69)	39.61 (23.01 to 59.05)
SOF12 + RBV12		2.24 (0.77 to 6.84)	7.24 (–1.96 to 24.12)
SOF24 + RBV24		1.28 (0.24 to 5.12)	1.65 (–6.37 to 19.38)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.21)	–5.69 (–10.51 to –2.63)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.86 (0.32 to 2.58)	–0.78 (–6.41 to 6.78)
DCV24 + ASU24 + PR24		0.88 (0.26 to 3.01)	–0.67 (–6.94 to 9.03)
SOF12 + PR12		3.21 (1.36 to 8.17)	13.23 (3.22 to 25.91)
T12 PR48 q8	SOF24 + LDV24 + RBV24	3.79 (1.74 to 9.13)	26.83 (12.28 to 42.55)
SIM12 PR24-48 RGT		1.64 (0.63 to 4.48)	6.08 (–6.19 to 19.21)
SIM12 PR48		1.35 (0.57 to 3.55)	3.29 (–7.69 to 13.45)
B32 PR36-48 RGT		4.71 (2.07 to 11.51)	35.67 (17.45 to 55.88)
SOF12 + RBV12		1.39 (0.47 to 4.44)	3.58 (–8.62 to 20.74)
SOF24 + RBV24		0.79 (0.14 to 3.35)	–1.93 (–13.62 to 16.00)
PAR/RIT12 + OMB12 + DAS12		0.02 (0.00 to 0.15)	–9.34 (–19.21 to –4.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.54 (0.18 to 1.75)	–4.33 (–14.38 to 4.32)
DCV24 + ASU24 + PR24		0.55 (0.15 to 2.02)	–4.18 (–14.77 to 6.25)
SOF12 + PR12		2.02 (0.78 to 5.10)	9.53 (–3.71 to 22.86)
SIM12 PR24-48 RGT	T12 PR48 q8	0.43 (0.21 to 0.86)	–20.75 (–37.40 to –4.01)
SIM12 PR48		0.36 (0.23 to 0.55)	–23.59 (–35.04 to –13.56)
B32 PR36-48 RGT		1.24 (0.73 to 2.09)	8.97 (–12.45 to 31.58)
SOF12 + RBV12		0.36 (0.15 to 0.87)	–23.23 (–38.96 to –4.12)
SOF24 + RBV24		0.21 (0.04 to 0.73)	–28.43 (–44.60 to –8.70)
PAR/RIT12 + OMB12 + DAS12		0.00 (0.00 to 0.04)	–36.60 (–50.90 to –25.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.14 (0.07 to 0.29)	–31.35 (–42.69 to –21.30)
DCV24 + ASU24 + PR24		0.14 (0.05 to 0.38)	–31.16 (–44.49 to –18.79)
SOF12 + PR12		0.52 (0.26 to 0.98)	–17.48 (–34.89 to –0.68)
SIM12 PR48	SIM12 PR24-48 RGT	0.82 (0.38 to 1.90)	–2.85 (–15.95 to 8.96)
B32 PR36-48 RGT		2.87 (1.41 to 6.17)	29.56 (9.80 to 51.06)
SOF12 + RBV12		0.83 (0.30 to 2.44)	–2.53 (–16.61 to 15.74)
SOF24 + RBV24		0.48 (0.09 to 1.94)	–7.93 (–21.61 to 11.18)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.10)	–15.57 (–27.49 to –8.06)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.33 (0.12 to 1.00)	–10.47 (–22.75 to –0.03)
DCV24 + ASU24 + PR24		0.33 (0.10 to 1.12)	–10.39 (–23.00 to 1.36)
SOF12 + PR12		1.22 (0.53 to 2.72)	3.36 (–11.55 to 17.57)
B32 PR36-48 RGT	SIM12 PR48	3.52 (1.85 to 6.47)	32.78 (14.85 to 52.18)
SOF12 + RBV12		1.03 (0.39 to 2.52)	0.39 (–10.65 to 16.46)
SOF24 + RBV24		0.59 (0.11 to 2.12)	–5.06 (–15.70 to 12.33)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.11)	–12.73 (–21.09 to –7.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.40 (0.17 to 0.93)	–7.59 (–15.14 to –0.79)
DCV24 + ASU24 + PR24		0.40 (0.17 to 0.97)	–7.42 (–14.12 to –0.36)
SOF12 + PR12		1.47 (0.66 to 3.13)	6.14 (–6.35 to 19.74)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	B32 PR36-48 RGT	0.30 (0.14 to 0.56)	–31.61 (–46.46 to –17.59)
SOF24 + RBV24		0.17 (0.04 to 0.49)	–36.87 (–53.66 to –21.14)
PAR/RIT12 + OMB12 + DAS12		0.00 (0.00 to 0.03)	–45.55 (–64.53 to –29.84)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.11 (0.04 to 0.30)	–40.32 (–59.74 to –23.18)
DCV24 + ASU24 + PR24		0.12 (0.04 to 0.34)	–40.09 (–59.39 to –22.41)
SOF12 + PR12		0.42 (0.21 to 0.82)	–26.35 (–48.08 to –6.11)
SOF24 + RBV24	SOF12 + RBV12	0.57 (0.12 to 2.02)	–5.47 (–20.19 to 10.23)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.12)	–12.96 (–29.49 to –5.29)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.39 (0.12 to 1.29)	–7.84 (–24.29 to 2.03)
DCV24 + ASU24 + PR24		0.39 (0.10 to 1.48)	–7.76 (–24.42 to 3.58)
SOF12 + PR12		1.43 (0.52 to 3.95)	5.67 (–12.99 to 20.39)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	0.02 (0.00 to 0.30)	–7.45 (–24.88 to –1.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.68 (0.16 to 4.16)	–2.39 (–19.81 to 6.79)
DCV24 + ASU24 + PR24		0.69 (0.14 to 4.83)	–2.31 (–19.49 to 8.93)
SOF12 + PR12		2.48 (0.64 to 14.00)	11.16 (–8.13 to 25.42)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	29.04 (3.23 to 418.50)	4.91 (1.79 to 12.11)
DCV24 + ASU24 + PR24		29.55 (2.94 to 458.60)	4.94 (1.41 to 14.47)
SOF12 + PR12		107.60 (13.04 to 1289.00)	19.02 (10.52 to 30.92)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.00 (0.30 to 3.45)	–0.01 (–6.88 to 9.06)
SOF12 + PR12		3.68 (1.27 to 10.29)	13.85 (2.75 to 26.31)
SOF12 + PR12	DCV24 + ASU24 + PR24	3.63 (1.10 to 11.84)	13.67 (1.15 to 26.59)
Random effect model	Residual deviance	37.06 vs. 38 data points	
	Deviance information criteria	223.003	
Fixed effect model	Residual deviance	37.64 vs. 38 data points	
	Deviance information criteria	222.563	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

FIGURE 44: ANEMIA TREATMENT-EXPERIENCED: PLOT OF POSTERIOR MEAN DEVIANCE OF THE INDIVIDUAL DATA POINTS IN THE INCONSISTENCY MODEL AGAINST THEIR POSTERIOR MEAN DEVIANCE IN THE CONSISTENCY MODEL



APPENDIX 12: RESULTS FROM SUBGROUP AND SENSITIVITY ANALYSES

Subgroups
Viral Load

TABLE 146: VIRAL LOAD ≥ THRESHOLD GENOTYPE 1 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS —RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.86 (1.33 to 2.30)	31.25 (12.22 to 44.45)
SOF12 + LDV12		2.40 (1.89 to 2.84)	51.42 (33.37 to 60.33)
SOF24 + LDV24		1.96 (0.60 to 2.76)	35.05 (–14.39 to 60.79)
SOF8 + LDV8		2.23 (1.36 to 2.79)	45.33 (13.02 to 59.94)
SOF8 + LDV8 + RBV8		2.18 (1.26 to 2.75)	43.47 (9.55 to 58.75)
SOF12 + LDV12 + RBV12		2.20 (1.11 to 2.79)	44.25 (4.00 to 60.53)
SOF24 + LDV24 + RBV24		2.28 (0.85 to 2.88)	47.00 (–5.37 to 63.41)
SIM12 PR24-48 RGT		2.04 (1.70 to 2.41)	37.94 (26.71 to 46.92)
B44 PR48		2.08 (1.40 to 2.77)	39.43 (15.42 to 57.12)
SOF24 + RBV (low dose) 24		0.61 (0.11 to 1.77)	–14.13 (–33.27 to 27.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.38 (1.51 to 2.89)	50.83 (18.60 to 62.50)
DCV24 + ASU24		2.33 (2.01 to 2.71)	48.66 (39.65 to 55.82)
SOF12 + PR12		0.53 (0.04 to 2.16)	–16.91 (–35.76 to 42.17)
SOF12 + LDV12	SOF24 + RBV24	1.29 (1.08 to 1.66)	19.68 (5.85 to 34.25)
SOF24 + LDV24		1.06 (0.33 to 1.60)	3.94 (–45.15 to 34.33)
SOF8 + LDV8		1.20 (0.78 to 1.57)	13.90 (–14.82 to 31.59)
SOF8 + LDV8 + RBV8		1.17 (0.73 to 1.55)	11.92 (–17.87 to 30.50)
SOF12 + LDV12 + RBV12		1.18 (0.63 to 1.62)	12.26 (–24.94 to 34.25)
SOF24 + LDV24 + RBV24		1.22 (0.47 to 1.72)	15.25 (–36.12 to 38.98)
SIM12 PR24-48 RGT		1.10 (0.87 to 1.55)	6.64 (–9.73 to 27.33)
B44 PR48		1.12 (0.76 to 1.64)	8.08 (–17.90 to 33.32)
SOF24 + RBV (low dose) 24		0.34 (0.07 to 0.91)	–43.41 (–66.03 to –6.38)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.27 (0.86 to 1.69)	18.63 (–9.61 to 36.66)
DCV24 + ASU24		1.26 (1.03 to 1.75)	17.32 (2.34 to 37.15)
SOF12 + PR12		0.29 (0.02 to 1.17)	–46.64 (–71.10 to 11.28)
SOF24 + LDV24	SOF12 + LDV12	0.82 (0.26 to 1.15)	–15.46 (–62.99 to 12.15)
SOF8 + LDV8		0.94 (0.64 to 1.06)	–5.54 (–29.10 to 5.21)
SOF8 + LDV8 + RBV8		0.92 (0.60 to 1.05)	–7.36 (–32.06 to 3.82)
SOF12 + LDV12 + RBV12		0.92 (0.50 to 1.11)	–6.65 (–42.23 to 9.11)
SOF24 + LDV24 + RBV24		0.96 (0.37 to 1.21)	–3.84 (–53.37 to 15.78)
SIM12 PR24-48 RGT		0.85 (0.72 to 1.08)	–13.53 (–26.24 to 5.94)
B44 PR48		0.86 (0.61 to 1.17)	–11.97 (–34.87 to 12.07)
SOF24 + RBV (low dose) 24		0.26 (0.05 to 0.72)	–63.76 (–84.97 to –23.69)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.70 to 1.15)	–0.55 (–24.52 to 12.01)
DCV24 + ASU24		0.97 (0.85 to 1.23)	–3.01 (–14.01 to 16.16)
SOF12 + PR12		0.22 (0.02 to 0.89)	–66.58 (–87.41 to –9.61)
SOF8 + LDV8	SOF24 + LDV24	1.13 (0.70 to 3.47)	9.46 (–25.18 to 58.65)
SOF8 + LDV8 + RBV8		1.11 (0.65 to 3.44)	7.63 (–29.64 to 57.19)
SOF12 + LDV12 + RBV12		1.11 (0.66 to 2.99)	7.61 (–27.29 to 49.16)
SOF24 + LDV24 + RBV24		1.12 (0.62 to 2.93)	8.77 (–26.46 to 53.79)
SIM12 PR24-48 RGT		1.04 (0.73 to 3.46)	2.87 (–25.35 to 52.61)
B44 PR48		1.06 (0.66 to 3.63)	4.37 (–31.14 to 58.04)
SOF24 + RBV (low dose) 24		0.34 (0.06 to 1.48)	–43.62 (–85.61 to 13.26)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (0.77 to 3.77)	13.99 (–19.76 to 64.20)
DCV24 + ASU24		1.19 (0.86 to 4.03)	13.47 (–13.60 to 64.57)
SOF12 + PR12		0.29 (0.05 to 0.83)	–43.09 (–70.34 to –11.97)
SOF8 + LDV8 + RBV8	SOF8 + LDV8	0.98 (0.74 to 1.23)	–1.79 (–19.37 to 13.78)
SOF12 + LDV12 + RBV12		0.99 (0.53 to 1.51)	–1.02 (–38.51 to 28.28)
SOF24 + LDV24 + RBV24		1.02 (0.40 to 1.65)	1.80 (–48.98 to 34.74)
SIM12 PR24-48 RGT		0.91 (0.73 to 1.51)	–7.36 (–24.56 to 25.56)
B44 PR48		0.93 (0.65 to 1.60)	–5.80 (–31.49 to 30.56)
SOF24 + RBV (low dose) 24		0.28 (0.05 to 0.82)	–56.32 (–82.34 to –12.64)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.05 (0.89 to 1.35)	4.44 (–8.14 to 20.52)
DCV24 + ASU24		1.04 (0.86 to 1.71)	3.03 (–12.66 to 35.47)
SOF12 + PR12		0.24 (0.02 to 0.98)	–58.43 (–86.13 to –1.58)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.55 to 1.58)	0.70 (–36.45 to 30.25)
SOF24 + LDV24 + RBV24		1.04 (0.42 to 1.75)	3.24 (–45.72 to 37.53)
SIM12 PR24-48 RGT		0.93 (0.74 to 1.62)	–5.65 (–23.62 to 29.01)
B44 PR48		0.95 (0.65 to 1.72)	–4.00 (–30.24 to 34.35)
SOF24 + RBV (low dose) 24		0.29 (0.05 to 0.85)	–54.05 (–81.93 to –9.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.08 (0.83 to 1.55)	6.43 (–12.87 to 28.89)
DCV24 + ASU24		1.06 (0.87 to 1.84)	4.84 (–11.70 to 39.22)
SOF12 + PR12		0.25 (0.02 to 1.02)	–56.23 (–85.09 to 1.14)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.47 to 1.90)	1.81 (–39.78 to 40.89)
SIM12 PR24-48 RGT		0.92 (0.73 to 1.84)	–6.19 (–25.46 to 34.32)
B44 PR48		0.95 (0.64 to 1.95)	–4.02 (–32.36 to 40.04)
SOF24 + RBV (low dose) 24		0.30 (0.05 to 0.89)	–54.09 (–84.13 to –6.18)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.07 (0.72 to 2.03)	5.44 (–22.89 to 44.69)
DCV24 + ASU24		1.05 (0.86 to 2.10)	4.20 (–13.34 to 44.76)
SOF12 + PR12		0.25 (0.02 to 0.94)	–55.15 (–83.64 to –4.48)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT	SOF24 + LDV24 + RBV24	0.89 (0.70 to 2.42)	–9.23 (–28.62 to 44.09)
B44 PR48		0.92 (0.61 to 2.47)	–6.90 (–36.43 to 47.26)
SOF24 + RBV (low dose) 24		0.29 (0.05 to 1.08)	–56.75 (–87.83 to 3.07)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.68 to 2.68)	2.62 (–28.67 to 54.56)
DCV24 + ASU24		1.02 (0.83 to 2.78)	1.57 (–16.85 to 54.72)
SOF12 + PR12		0.25 (0.03 to 0.93)	–55.86 (–88.32 to –4.52)
B44 PR48	SIM12 PR24-48 RGT	1.02 (0.70 to 1.32)	1.65 (–23.42 to 21.46)
SOF24 + RBV (low dose) 24		0.30 (0.05 to 0.87)	–51.53 (–73.02 to –9.16)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (0.73 to 1.42)	12.62 (–20.19 to 27.69)
DCV24 + ASU24		1.14 (0.98 to 1.36)	10.69 (–1.27 to 22.95)
SOF12 + PR12		0.26 (0.02 to 1.08)	–54.47 (–75.45 to 5.73)
SOF24 + RBV (low dose) 24	B44 PR48	0.30 (0.05 to 0.91)	–52.26 (–79.67 to –5.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.14 (0.70 to 1.63)	10.76 (–24.69 to 35.45)
DCV24 + ASU24		1.12 (0.89 to 1.60)	9.20 (–9.64 to 32.69)
SOF12 + PR12		0.25 (0.02 to 1.10)	–54.88 (–83.32 to 7.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + RBV (low dose) 24	3.77 (1.31 to 20.36)	61.58 (17.65 to 86.32)
DCV24 + ASU24		3.79 (1.32 to 21.36)	62.39 (20.16 to 82.68)
SOF12 + PR12		0.87 (0.06 to 8.59)	–2.32 (–47.95 to 59.57)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.97 (0.83 to 1.55)	–2.30 (–15.77 to 30.24)
SOF12 + PR12		0.23 (0.02 to 0.91)	–63.74 (–90.20 to –6.39)
SOF12 + PR12	DCV24 + ASU24	0.23 (0.02 to 0.93)	–65.40 (–85.63 to –5.60)
Random effect model	Residual deviance	27.1 vs. 29 data points	
	Deviance information criteria	167.03	
Fixed effect model	Residual deviance	26.28 vs. 29 data points	
	Deviance information criteria	165.097	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 147: VIRAL LOAD < THRESHOLD GENOTYPE 1 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.01 (0.71 to 1.19)	0.67 (–23.35 to 14.48)
SOF12 + LDV12		1.01 (0.49 to 1.23)	0.63 (–40.39 to 17.20)
SOF24 + LDV24		1.00 (0.30 to 1.27)	–0.17 (–56.22 to 20.73)
SOF8 + LDV8		1.10 (0.44 to 1.29)	8.05 (–44.02 to 21.90)
SOF8 + LDV8 + RBV8		1.02 (0.36 to 1.27)	1.74 (–50.35 to 20.38)
SOF12 + LDV12 + RBV12		1.17 (0.67 to 1.33)	13.80 (–26.51 to 24.45)
SOF24 + LDV24 + RBV24		1.00 (0.24 to 1.27)	0.25 (–60.45 to 20.27)
SIM12 PR24-48 RGT		1.16 (1.05 to 1.30)	12.91 (3.94 to 21.66)
B44 PR48		1.05 (0.27 to 1.33)	3.74 (–62.16 to 23.95)
SOF24 + RBV (low dose) 24		1.06 (0.41 to 1.27)	4.59 (–47.00 to 20.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.15 (0.50 to 1.33)	12.22 (–39.51 to 24.14)
DCV24 + ASU24		1.19 (1.08 to 1.34)	15.44 (6.43 to 24.44)
SOF12 + PR12		0.97 (0.14 to 1.28)	–2.59 (–69.60 to 21.34)
SOF12 + LDV12	SOF24 + RBV24	0.99 (0.53 to 1.39)	–0.52 (–36.59 to 23.88)
SOF24 + LDV24		0.99 (0.32 to 1.49)	–0.78 (–54.28 to 30.00)
SOF8 + LDV8		1.07 (0.47 to 1.58)	6.09 (–41.38 to 34.04)
SOF8 + LDV8 + RBV8		1.01 (0.39 to 1.49)	0.89 (–48.41 to 29.83)
SOF12 + LDV12 + RBV12		1.14 (0.68 to 1.68)	11.75 (–25.63 to 39.05)
SOF24 + LDV24 + RBV24		1.00 (0.25 to 1.51)	–0.38 (–60.63 to 31.33)
SIM12 PR24-48 RGT		1.15 (0.97 to 1.69)	12.02 (–2.45 to 38.36)
B44 PR48		1.04 (0.26 to 1.66)	3.52 (–64.24 to 37.79)
SOF24 + RBV (low dose) 24		1.04 (0.44 to 1.42)	3.36 (–41.44 to 26.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.52 to 1.66)	10.19 (–38.22 to 37.85)
DCV24 + ASU24		1.18 (1.00 to 1.74)	14.60 (–0.19 to 40.85)
SOF12 + PR12		0.97 (0.14 to 1.48)	–2.77 (–69.09 to 29.98)
SOF24 + LDV24	SOF12 + LDV12	0.99 (0.36 to 1.77)	–0.72 (–47.44 to 36.38)
SOF8 + LDV8		1.07 (0.61 to 1.84)	5.66 (–28.17 to 39.67)
SOF8 + LDV8 + RBV8		1.02 (0.47 to 1.58)	1.48 (–37.75 to 29.26)
SOF12 + LDV12 + RBV12		1.14 (0.78 to 2.09)	11.63 (–17.16 to 46.94)
SOF24 + LDV24 + RBV24		1.00 (0.29 to 1.68)	0.05 (–53.74 to 33.90)
SIM12 PR24-48 RGT		1.15 (0.95 to 2.38)	12.29 (–4.59 to 53.88)
B44 PR48		1.04 (0.27 to 2.26)	3.11 (–64.53 to 50.29)
SOF24 + RBV (low dose) 24		1.03 (0.44 to 2.06)	2.80 (–44.40 to 44.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.11 (0.62 to 2.07)	9.36 (–28.78 to 46.60)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.18 (0.97 to 2.45)	14.95 (–2.94 to 56.19)
SOF12 + PR12		0.97 (0.15 to 1.79)	–2.64 (–67.06 to 37.57)
SOF8 + LDV8	SOF24 + LDV24	1.08 (0.49 to 3.46)	6.43 (–40.98 to 63.01)
SOF8 + LDV8 + RBV8		1.02 (0.38 to 3.22)	1.75 (–52.01 to 57.29)
SOF12 + LDV12 + RBV12		1.14 (0.77 to 3.53)	11.79 (–18.36 to 63.85)
SOF24 + LDV24 + RBV24		1.00 (0.37 to 2.43)	–0.10 (–47.19 to 45.81)
SIM12 PR24-48 RGT		1.16 (0.92 to 3.95)	13.15 (–7.71 to 69.87)
B44 PR48		1.04 (0.27 to 3.38)	2.98 (–64.32 to 62.82)
SOF24 + RBV (low dose) 24		1.04 (0.40 to 3.41)	3.21 (–52.72 to 60.34)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.52 to 3.76)	9.53 (–39.25 to 68.76)
DCV24 + ASU24		1.19 (0.95 to 4.05)	15.24 (–4.67 to 72.28)
SOF12 + PR12		0.98 (0.26 to 1.68)	–1.97 (–46.66 to 29.66)
SOF8 + LDV8 + RBV8	SOF8 + LDV8	0.96 (0.45 to 1.52)	–3.67 (–45.71 to 24.94)
SOF12 + LDV12 + RBV12		1.05 (0.66 to 2.37)	4.44 (–29.41 to 52.33)
SOF24 + LDV24 + RBV24		0.93 (0.25 to 1.92)	–6.18 (–64.94 to 38.68)
SIM12 PR24-48 RGT		1.05 (0.91 to 2.65)	4.62 (–8.72 to 57.69)
B44 PR48		0.96 (0.26 to 2.38)	–3.34 (–67.78 to 50.87)
SOF24 + RBV (low dose) 24		0.97 (0.39 to 2.23)	–2.75 (–53.07 to 45.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.64 to 1.81)	3.13 (–27.67 to 34.34)
DCV24 + ASU24		1.08 (0.94 to 2.75)	6.82 (–6.11 to 60.99)
SOF12 + PR12		0.91 (0.13 to 1.99)	–7.74 (–77.53 to 40.50)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.12 (0.71 to 3.03)	9.73 (–24.22 to 60.99)
SOF24 + LDV24 + RBV24		0.98 (0.28 to 2.41)	–1.43 (–58.56 to 49.64)
SIM12 PR24-48 RGT		1.13 (0.92 to 3.21)	11.01 (–7.35 to 64.13)
B44 PR48		1.02 (0.28 to 2.82)	1.30 (–64.78 to 57.18)
SOF24 + RBV (low dose) 24		1.02 (0.43 to 2.69)	1.68 (–49.00 to 53.24)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.10 (0.60 to 2.64)	8.11 (–30.90 to 54.86)
DCV24 + ASU24		1.16 (0.95 to 3.29)	13.28 (–4.85 to 66.86)
SOF12 + PR12		0.96 (0.14 to 2.50)	–3.17 (–74.63 to 50.92)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.88 (0.25 to 1.28)	–11.41 (–67.50 to 18.28)
SIM12 PR24-48 RGT		0.99 (0.88 to 1.75)	–1.16 (–11.53 to 40.07)
B44 PR48		0.91 (0.24 to 1.59)	–8.20 (–73.97 to 33.64)
SOF24 + RBV (low dose) 24		0.92 (0.35 to 1.54)	–8.11 (–60.69 to 30.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.47 to 1.56)	–0.91 (–47.49 to 32.92)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.01 (0.91 to 1.82)	0.92 (–8.91 to 43.19)
SOF12 + PR12		0.85 (0.13 to 1.30)	–14.26 (–79.60 to 19.42)
SIM12 PR24-48 RGT	SOF24 + LDV24 + RBV24	1.16 (0.93 to 4.85)	12.93 (–7.17 to 73.42)
B44 PR48		1.03 (0.28 to 4.13)	2.71 (–66.06 to 66.29)
SOF24 + RBV (low dose) 24		1.03 (0.42 to 3.93)	2.76 (–50.20 to 65.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.57 to 4.30)	10.09 (–35.87 to 68.95)
DCV24 + ASU24		1.19 (0.95 to 4.98)	15.33 (–5.20 to 76.39)
SOF12 + PR12		0.98 (0.18 to 2.82)	–1.55 (–65.35 to 50.83)
B44 PR48	SIM12 PR24-48 RGT	0.90 (0.24 to 1.11)	–9.13 (–73.22 to 9.49)
SOF24 + RBV (low dose) 24		0.91 (0.35 to 1.09)	–8.23 (–60.60 to 7.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.43 to 1.13)	–0.15 (–53.15 to 10.87)
DCV24 + ASU24		1.03 (0.93 to 1.14)	2.40 (–6.37 to 11.79)
SOF12 + PR12		0.83 (0.12 to 1.09)	–15.51 (–82.38 to 8.33)
SOF24 + RBV (low dose) 24	B44 PR48	1.01 (0.36 to 3.76)	0.97 (–58.19 to 66.26)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.08 (0.48 to 4.04)	6.74 (–45.95 to 71.58)
DCV24 + ASU24		1.14 (0.93 to 4.29)	11.54 (–6.77 to 74.04)
SOF12 + PR12		0.95 (0.14 to 3.39)	–4.62 (–77.00 to 62.67)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + RBV (low dose) 24	1.07 (0.49 to 2.74)	6.34 (–42.79 to 58.19)
DCV24 + ASU24		1.12 (0.95 to 3.01)	10.58 (–5.19 to 64.23)
SOF12 + PR12		0.94 (0.14 to 2.39)	–5.11 (–75.73 to 51.39)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.03 (0.91 to 2.41)	2.55 (–8.47 to 56.21)
SOF12 + PR12		0.87 (0.13 to 1.90)	–11.82 (–81.86 to 38.89)
SOF12 + PR12	DCV24 + ASU24	0.82 (0.11 to 1.06)	–17.79 (–85.02 to 5.22)
Random effect model	Residual deviance	24.72 vs. 29 data points	
	Deviance information criteria	117.779	
Fixed effect model	Residual deviance	23.87 vs. 29 data points	
	Deviance information criteria	114.047	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 148: VIRAL LOAD ≥ THRESHOLD GENOTYPE 2 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR24	1.17 (1.07 to 1.28)	13.25 (5.60 to 20.55)
Random effect model	Residual deviance	6.838 vs. 8 data points	
	Deviance information criteria	38.161	
Fixed effect model	Residual deviance	6.96 vs. 8 data points	
	Deviance information criteria	37.961	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 149: VIRAL LOAD < THRESHOLD GENOTYPE 2 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS —RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR24	1.25 (1.08 to 1.45)	19.04 (6.66 to 29.79)
Random effect model	Residual deviance	6.754 vs. 8 data points	
	Deviance information criteria	32.185	
Fixed effect model	Residual deviance	6.769 vs. 8 data points	
	Deviance information criteria	32.023	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 150: VIRAL LOAD ≥ THRESHOLD GENOTYPE 4 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.13 (0.79 to 1.77)	9.40 (–17.38 to 37.76)
Random effect model	Residual deviance	3.409 vs. 4 data points	
	Deviance information criteria	15.435	
Fixed effect model	Residual deviance	3.446 vs. 4 data points	
	Deviance information criteria	15.427	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 151: VIRAL LOAD < THRESHOLD GENOTYPE 4 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.09 (0.88 to 1.46)	7.51 (–11.20 to 29.78)
Random effect model	Residual deviance	2.824 vs. 4 data points	
	Deviance information criteria	12.44	
Fixed effect model	Residual deviance	2.777 vs. 4 data points	
	Deviance information criteria	12.375	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 152: VIRAL LOAD ≥ THRESHOLD GENOTYPE 1 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24	SOF12 + LDV12	1.04 (0.98 to 1.10)	3.42 (–1.48 to 8.92)
SOF12 + LDV12 + RBV12		1.03 (0.98 to 1.10)	2.91 (–2.01 to 8.47)
SOF24 + LDV24 + RBV24		1.05 (1.00 to 1.11)	4.46 (–0.05 to 9.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.91 to 1.10)	2.64 (–8.26 to 8.64)
DCV24 + ASU24		0.92 (0.67 to 1.04)	–7.28 (–30.94 to 3.27)
DCV24 + ASU24 + PR24		0.99 (0.58 to 1.08)	–0.95 (–39.66 to 7.50)
SOF12 + PR12		0.91 (0.56 to 1.04)	–8.62 (–41.17 to 3.44)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.00 (0.96 to 1.03)	–0.45 (–3.99 to 2.87)
SOF24 + LDV24 + RBV24		1.01 (0.97 to 1.06)	1.06 (–2.68 to 5.17)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.89 to 1.03)	–0.53 (–10.64 to 3.24)
DCV24 + ASU24		0.89 (0.65 to 0.98)	–10.61 (–33.78 to –1.52)
DCV24 + ASU24 + PR24		0.96 (0.56 to 1.03)	–4.16 (–43.40 to 2.91)
SOF12 + PR12		0.88 (0.55 to 0.99)	–11.96 (–44.07 to –1.21)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.98 to 1.06)	1.48 (–2.05 to 5.72)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.91 to 1.03)	–0.09 (–8.95 to 2.64)
DCV24 + ASU24		0.89 (0.67 to 0.98)	–10.20 (–31.58 to –2.25)
DCV24 + ASU24 + PR24		0.96 (0.56 to 1.04)	–3.72 (–42.50 to 3.55)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.88 (0.56 to 0.98)	–11.48 (–42.25 to –1.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + LDV24 + RBV24	0.98 (0.88 to 1.02)	–1.57 (–12.24 to 2.20)
DCV24 + ASU24		0.88 (0.64 to 0.98)	–11.75 (–35.44 to –1.79)
DCV24 + ASU24 + PR24		0.95 (0.56 to 1.00)	–5.30 (–42.92 to –0.19)
SOF12 + PR12		0.87 (0.53 to 0.98)	–13.07 (–46.03 to –1.79)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.90 (0.67 to 0.99)	–9.53 (–31.00 to –0.64)
DCV24 + ASU24 + PR24		0.97 (0.57 to 1.09)	–3.28 (–41.48 to 7.79)
SOF12 + PR12		0.89 (0.56 to 1.00)	–10.84 (–42.00 to 0.35)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.06 (0.64 to 1.46)	5.56 (–32.01 to 29.93)
SOF12 + PR12		0.99 (0.66 to 1.27)	–1.23 (–28.96 to 18.36)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.93 (0.58 to 1.53)	–6.51 (–39.96 to 30.29)
Random effect model	Residual deviance	16.3 vs. 18 data points	
	Deviance information criteria	89.512	
Fixed effect model	Residual deviance	16.03 vs. 18 data points	
	Deviance information criteria	88.713	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 153: VIRAL LOAD < THRESHOLD GENOTYPE 1: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24	SOF12 + LDV12	1.01 (0.81 to 1.40)	1.10 (–17.41 to 26.65)
SOF12 + LDV12 + RBV12		1.02 (0.84 to 1.40)	2.06 (–14.81 to 26.56)
SOF24 + LDV24 + RBV24		1.03 (0.82 to 1.41)	3.00 (–17.00 to 27.20)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.75 to 1.46)	5.31 (–22.00 to 30.30)
DCV24 + ASU24		1.01 (0.59 to 1.39)	0.95 (–36.76 to 26.10)
DCV24 + ASU24 + PR24		1.06 (0.82 to 1.47)	5.85 (–16.00 to 30.79)
SOF12 + PR12		1.00 (0.37 to 1.34)	–0.02 (–54.98 to 23.70)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.86 to 1.22)	0.75 (–12.87 to 16.80)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24 + RBV24		1.02 (0.79 to 1.28)	1.57 (–19.26 to 20.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.04 (0.73 to 1.30)	4.06 (–23.82 to 21.96)
DCV24 + ASU24		1.00 (0.59 to 1.22)	0.06 (–36.48 to 17.02)
DCV24 + ASU24 + PR24		1.05 (0.78 to 1.32)	4.78 (–19.73 to 23.87)
SOF12 + PR12		0.99 (0.35 to 1.23)	–1.27 (–57.78 to 17.64)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.79 to 1.24)	0.74 (–19.57 to 18.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.74 to 1.24)	3.05 (–22.77 to 18.47)
DCV24 + ASU24		0.99 (0.61 to 1.12)	–0.75 (–33.79 to 10.18)
DCV24 + ASU24 + PR24		1.04 (0.79 to 1.28)	3.90 (–19.98 to 21.40)
SOF12 + PR12		0.98 (0.36 to 1.16)	–2.00 (–55.75 to 12.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + LDV24 + RBV24	1.03 (0.71 to 1.32)	2.56 (–27.16 to 23.39)
DCV24 + ASU24		0.99 (0.56 to 1.25)	–1.41 (–40.60 to 19.12)
DCV24 + ASU24 + PR24		1.03 (0.83 to 1.27)	2.77 (–15.38 to 20.32)
SOF12 + PR12		0.97 (0.34 to 1.25)	–2.80 (–60.76 to 19.04)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.96 (0.56 to 1.31)	–3.58 (–41.65 to 20.77)
DCV24 + ASU24 + PR24		1.00 (0.75 to 1.47)	0.33 (–24.47 to 31.15)
SOF12 + PR12		0.95 (0.34 to 1.31)	–5.01 (–62.12 to 21.69)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.05 (0.79 to 1.86)	4.54 (–20.21 to 44.60)
SOF12 + PR12		0.99 (0.38 to 1.58)	–0.98 (–52.30 to 32.82)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.94 (0.33 to 1.25)	–5.85 (–64.09 to 18.84)
Random effect model	Residual deviance	13.36 vs. 18 data points	
	Deviance information criteria	60.174	
Fixed effect model	Residual deviance	13.41 vs. 18 data points	
	Deviance information criteria	60.257	

ASU = asunaprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 154: VIRAL LOAD ≥ THRESHOLD GENOTYPE 4 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.76 (0.93 to 2.93)	37.64 (–3.72 to 61.92)
DCV24 + ASU24 + PR24		1.96 (1.37 to 3.18)	46.86 (23.62 to 66.18)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.09 (0.86 to 2.02)	7.92 (–13.33 to 48.27)
Random effect model	Residual deviance	3.684 vs. 4 data points	
	Deviance information criteria	17.244	
Fixed effect model	Residual deviance	3.747 vs. 4 data points	
	Deviance information criteria	17.37	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 155: VIRAL LOAD < THRESHOLD GENOTYPE 4 TREATMENT-EXPERIENCED: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.02 (0.46 to 1.48)	1.57 (–47.73 to 30.03)
DCV24 + ASU24 + PR24		1.05 (0.61 to 1.55)	4.79 (–35.24 to 33.60)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.03 (0.58 to 2.40)	3.10 (–39.92 to 56.32)
Random effect model	Residual deviance	3.341 vs. 4 data points	
	Deviance information criteria	12.853	
Fixed effect model	Residual deviance	3.262 vs. 4 data points	
	Deviance information criteria	12.716	

ASU = asunaprevir; CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

HIV CoInfection

TABLE 156: HIV COINFECTION GENOTYPE 1 TREATMENT-NAIVE: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	1.86 (1.01 to 3.01)	33.75 (0.48 to 56.91)
B44 PR48		1.79 (1.11 to 2.65)	31.22 (4.26 to 50.01)
SOF24 + RBV24		2.08 (1.39 to 3.36)	42.12 (18.37 to 62.52)
SOF12 + LDV12		2.46 (1.72 to 3.78)	56.76 (35.76 to 71.78)
B44 PR48	T12 PR48 q8	0.97 (0.54 to 1.75)	–2.21 (–37.16 to 33.93)
SOF24 + RBV24		1.12 (0.75 to 2.03)	8.67 (–21.18 to 44.27)
SOF12 + LDV12		1.31 (0.98 to 2.31)	22.71 (–2.02 to 55.09)
SOF24 + RBV24	B44 PR48	1.15 (0.80 to 2.07)	10.85 (–16.48 to 44.64)
SOF12 + LDV12		1.35 (1.03 to 2.33)	24.98 (2.11 to 55.37)
SOF12 + LDV12	SOF24 + RBV24	1.17 (0.92 to 1.56)	14.10 (–7.13 to 34.95)
Random effect model	Residual deviance	10.15 vs. 12 data points	
	Deviance information criteria	56.046	
Fixed effect model	Residual deviance	10.02 vs. 12 data points	
	Deviance information criteria	55.736	

B = boceprevir; BEC = beclabuvir; CrI = credible interval; LDV = ledipasvir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Sensitivity Analyses

Supplemental Analysis: Inclusion of Emerging Treatments — Efficacy and Harms Treatment-Naive

TABLE 157: GENOTYPE 1 TREATMENT-NAIVE WITH EMERGING TREATMENTS: RELATIVE RISK AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.47 (1.01 to 1.77)	25.16 (0.41 to 39.13)
SIM12 + SOF12		1.70 (0.85 to 1.95)	37.61 (–7.71 to 47.57)
SOF12 + LDV12		1.81 (1.66 to 1.98)	43.04 (38.00 to 47.99)
SOF8 + LDV8 + RBV8		1.76 (1.54 to 1.94)	40.47 (29.71 to 46.71)
SOF12 + LDV12 + RBV12		1.77 (1.61 to 1.95)	41.04 (34.39 to 46.85)
SOF24 + LDV24 + RBV24		1.83 (1.67 to 2.01)	44.26 (38.20 to 49.34)
T12 PR24-48 RGT q8		1.52 (1.34 to 1.68)	27.77 (18.64 to 34.53)
T12 PR24-48 RGT q12		1.54 (1.31 to 1.73)	28.81 (16.38 to 37.01)
T12 PR48 q8		1.50 (0.97 to 1.87)	26.55 (–1.92 to 43.18)
SOF12 + PR12		1.56 (1.20 to 1.79)	29.68 (10.50 to 40.19)
SOF12 PR24-48 RGT		1.63 (1.24 to 1.87)	33.97 (13.15 to 43.97)
SIM12 PR24-48 RGT		1.49 (1.33 to 1.66)	26.14 (18.17 to 32.99)
B24 PR28-48 RGT		1.43 (1.25 to 1.60)	23.04 (13.35 to 30.89)
B44 PR48		1.53 (1.19 to 1.79)	28.58 (10.50 to 40.12)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		0.86 (0.43 to 1.36)	–7.33 (–30.59 to 18.75)
SOF12+ SIM12+ RBV12		1.73 (0.60 to 1.98)	39.59 (–21.34 to 48.81)
SOF12 + RBV12		1.56 (0.95 to 1.88)	30.18 (–2.79 to 44.55)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.80 (1.65 to 1.98)	42.88 (36.87 to 48.06)
DCV24 + ASU24		1.63 (1.43 to 1.82)	33.45 (23.72 to 40.78)
DCV12 + SOF12		1.78 (1.31 to 2.01)	41.88 (16.78 to 49.42)
PAR/RIT12 + OMB12 + DAS12		1.81 (1.37 to 2.01)	43.82 (19.92 to 49.59)
GRZ12 + ELB12		1.75 (1.54 to 1.94)	40.03 (30.15 to 46.48)
GRZ12 + ELB12 + RBV12		1.66 (1.08 to 1.93)	35.12 (4.21 to 46.17)
DCV12 + ASU12 + BEC12 + RBV12		1.80 (1.53 to 2.00)	42.97 (28.89 to 49.25)
DCV12 + ASU12 + BEC12		1.73 (1.58 to 1.91)	39.17 (32.61 to 44.59)
GRZ12 + ELB12 (50 mg q.d.)		1.74 (1.27 to 1.98)	39.45 (14.76 to 48.06)
GRZ18 + ELB18 (50 mg q.d.)		1.72 (0.98 to 1.97)	38.62 (–0.96 to 48.01)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.00 (0.00 to 1.95)	–0.27 (–54.43 to 48.03)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.74 (1.12 to 1.97)	39.77 (6.45 to 48.24)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.78 (1.17 to 2.01)	41.99 (9.12 to 49.42)
SIM12 + SOF12	SOF24 + RBV24	1.15 (0.59 to 1.69)	11.81 (–32.06 to 37.96)
SOF12 + LDV12		1.23 (1.05 to 1.79)	17.81 (4.73 to 42.49)
SOF8 + LDV8 + RBV8		1.19 (0.99 to 1.75)	15.06 (–1.29 to 40.23)
SOF12 + LDV12 + RBV12		1.20 (1.03 to 1.74)	16.09 (2.35 to 39.83)
SOF24 + LDV24 + RBV24		1.24 (1.06 to 1.82)	19.06 (5.77 to 43.78)
T12 PR24-48 RGT q8		1.03 (0.85 to 1.52)	2.63 (–13.69 to 28.17)
T12 PR24-48 RGT q12		1.05 (0.83 to 1.56)	3.56 (–14.80 to 30.14)
T12 PR48 q8		1.02 (0.67 to 1.55)	1.50 (–28.17 to 30.43)
SOF12 + PR12		1.06 (0.79 to 1.56)	4.49 (–18.50 to 30.72)
SOF12 PR24-48 RGT		1.11 (0.81 to 1.64)	8.41 (–16.82 to 35.04)
SIM12 PR24-48 RGT		1.01 (0.84 to 1.51)	1.09 (–14.63 to 27.37)
B24 PR28-48 RGT		0.98 (0.79 to 1.43)	–1.97 (–18.79 to 23.66)
B44 PR48		1.04 (0.78 to 1.57)	3.04 (–19.03 to 30.90)
SOF24 + RBV (low dose) 24		0.60 (0.38 to 0.81)	–30.26 (–43.74 to –16.33)
SOF12 + SIM12 + RBV12		1.16 (0.40 to 1.76)	12.87 (–49.34 to 41.90)
SOF12 + RBV12		1.06 (0.72 to 1.44)	4.64 (–21.72 to 26.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.23 (1.05 to 1.80)	17.73 (4.18 to 42.62)
DCV24 + ASU24		1.10 (0.90 to 1.64)	8.17 (–8.74 to 34.51)
DCV12 + SOF12		1.20 (0.89 to 1.78)	15.48 (–8.94 to 42.23)
PAR/RIT12 + OMB12 + DAS12		1.23 (0.93 to 1.79)	17.87 (–5.61 to 42.85)
GRZ12 + ELB12		1.18 (0.99 to 1.75)	14.54 (–1.15 to 40.50)
GRZ12 + ELB12 + RBV12		1.11 (0.73 to 1.71)	8.98 (–22.68 to 38.40)
DCV12 + ASU12 + BEC12 + RBV12		1.22 (1.00 to 1.80)	17.27 (–0.17 to 43.29)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		1.18 (1.00 to 1.74)	13.89 (–0.17 to 39.49)
GRZ12 + ELB12 (50 mg q.d.)		1.17 (0.85 to 1.78)	13.23 (–12.25 to 42.10)
GRZ18 + ELB18 (50 mg q.d.)		1.15 (0.68 to 1.76)	11.93 (–25.60 to 41.56)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.69 (0.00 to 1.57)	–24.09 (–85.28 to 34.50)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.17 (0.77 to 1.76)	13.48 (–18.62 to 40.96)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.19 (0.81 to 1.81)	15.08 (–15.60 to 43.70)
SOF12 + LDV12	SIM12 + SOF12	1.06 (0.97 to 2.13)	5.16 (–2.81 to 50.60)
SOF8 + LDV8 + RBV8		1.03 (0.90 to 2.08)	2.43 (–9.15 to 47.92)
SOF12 + LDV12 + RBV12		1.03 (0.93 to 2.09)	3.15 (–6.72 to 48.93)
SOF24 + LDV24 + RBV24		1.07 (0.97 to 2.16)	6.27 (–2.52 to 52.09)
T12 PR24-48 RGT q8		0.89 (0.76 to 1.77)	–9.78 (–22.97 to 35.28)
T12 PR24-48 RGT q12		0.91 (0.75 to 1.80)	–8.74 (–24.18 to 36.03)
T12 PR48 q8		0.89 (0.57 to 1.83)	–10.48 (–41.77 to 38.37)
SOF12 + PR12		0.92 (0.73 to 1.66)	–7.49 (–24.54 to 30.49)
SOF12 PR24-48 RGT		0.96 (0.74 to 1.85)	–3.75 (–24.44 to 38.57)
SIM12 PR24-48 RGT		0.88 (0.76 to 1.77)	–11.44 (–23.56 to 34.73)
B24 PR28-48 RGT		0.84 (0.71 to 1.70)	–14.33 (–27.90 to 31.22)
B44 PR48		0.91 (0.70 to 1.76)	–8.28 (–28.36 to 34.88)
SOF24 + RBV (low dose) 24		0.53 (0.25 to 1.10)	–42.37 (–69.14 to 5.06)
SOF12 + SIM12 + RBV12		1.01 (0.41 to 1.67)	1.23 (–49.59 to 33.19)
SOF12 + RBV12		0.93 (0.55 to 1.76)	–6.19 (–41.92 to 34.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.96 to 2.13)	5.08 (–3.67 to 50.71)
DCV24 + ASU24		0.95 (0.82 to 1.92)	–4.40 (–17.07 to 41.97)
DCV12 + SOF12		1.04 (0.76 to 2.10)	3.65 (–22.84 to 49.76)
PAR/RIT12 + OMB12 + DAS12		1.06 (0.79 to 2.15)	5.27 (–20.03 to 52.12)
GRZ12 + ELB12		1.02 (0.90 to 2.07)	2.14 (–9.95 to 48.23)
GRZ12 + ELB12 + RBV12		0.97 (0.65 to 2.02)	–2.42 (–32.61 to 45.94)
DCV12 + ASU12 + BEC12 + RBV12		1.06 (0.87 to 2.14)	5.16 (–12.88 to 51.10)
DCV12 + ASU12 + BEC12		1.02 (0.91 to 2.06)	1.40 (–9.03 to 47.77)
GRZ12 + ELB12 (50 mg q.d.)		1.02 (0.75 to 2.09)	1.55 (–23.25 to 49.33)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.59 to 2.06)	0.24 (–38.42 to 48.33)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.61 (0.00 to 1.50)	–33.45 (–95.72 to 30.08)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.02 (0.70 to 2.10)	1.39 (–27.30 to 49.31)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.04 (0.68 to 2.11)	3.83 (–30.92 to 50.48)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.88 to 1.01)	–2.34 (–11.61 to 1.01)
SOF12 + LDV12 + RBV12		0.98 (0.92 to 1.02)	–1.89 (–7.25 to 1.77)
SOF24 + LDV24 + RBV24		1.01 (0.97 to 1.05)	1.24 (–3.27 to 4.62)
T12 PR24-48 RGT q8		0.84 (0.74 to 0.91)	–15.25 (–25.00 to –8.24)
T12 PR24-48 RGT q12		0.85 (0.72 to 0.93)	–14.12 (–27.03 to –6.23)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8		0.83 (0.55 to 0.99)	–16.59 (–43.80 to –1.43)
SOF12 + PR12		0.86 (0.67 to 0.95)	–13.35 (–30.91 to –5.04)
SOF12 PR24-48 RGT		0.90 (0.70 to 1.00)	–9.23 (–29.29 to 0.24)
SIM12 PR24-48 RGT		0.83 (0.75 to 0.89)	–16.85 (–24.76 to –10.31)
B24 PR28-48 RGT		0.79 (0.69 to 0.88)	–19.96 (–30.40 to –11.58)
B44 PR48		0.85 (0.67 to 0.96)	–14.42 (–32.11 to –3.87)
SOF24 + RBV (low dose) 24		0.48 (0.23 to 0.74)	–50.17 (–73.36 to –24.70)
SOF12 + SIM12 + RBV12		0.97 (0.33 to 1.05)	–3.18 (–64.28 to 4.25)
SOF12 + RBV12		0.87 (0.52 to 1.01)	–12.75 (–46.13 to 0.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.96 to 1.03)	–0.12 (–3.85 to 2.46)
DCV24 + ASU24		0.90 (0.80 to 0.97)	–9.56 (–19.05 to –2.83)
DCV12 + SOF12		0.99 (0.74 to 1.06)	–1.00 (–25.26 to 5.28)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.76 to 1.06)	1.08 (–22.74 to 5.15)
GRZ12 + ELB12		0.97 (0.87 to 1.03)	–2.88 (–12.22 to 2.54)
GRZ12 + ELB12 + RBV12		0.92 (0.61 to 1.02)	–7.83 (–37.91 to 1.57)
DCV12 + ASU12 + BEC12 + RBV12		1.00 (0.85 to 1.05)	0.31 (–14.28 to 4.78)
DCV12 + ASU12 + BEC12		0.96 (0.90 to 1.01)	–3.80 (–10.14 to 0.70)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.72 to 1.04)	–3.33 (–27.04 to 3.31)
GRZ18 + ELB18 (50 mg q.d.)		0.96 (0.55 to 1.04)	–4.24 (–43.16 to 3.91)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.55 (0.00 to 1.04)	–43.34 (–96.70 to 3.96)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.63 to 1.04)	–2.91 (–35.36 to 3.89)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.65 to 1.05)	–0.68 (–34.07 to 4.76)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.94 to 1.13)	0.52 (–5.51 to 10.53)
SOF24 + LDV24 + RBV24		1.04 (0.98 to 1.18)	3.57 (–2.04 to 14.52)
T12 PR24-48 RGT q8		0.87 (0.76 to 0.99)	–12.68 (–23.07 to –0.88)
T12 PR24-48 RGT q12		0.88 (0.74 to 1.01)	–11.48 (–24.95 to 1.03)
T12 PR48 q8		0.85 (0.56 to 1.05)	–13.76 (–41.23 to 4.08)
SOF12 + PR12		0.89 (0.70 to 1.00)	–10.52 (–28.07 to –0.32)
SOF12 PR24-48 RGT		0.93 (0.72 to 1.09)	–6.69 (–27.02 to 7.52)
SIM12 PR24-48 RGT		0.85 (0.76 to 0.97)	–14.22 (–23.17 to –2.99)
B24 PR28-48 RGT		0.82 (0.70 to 0.95)	–17.28 (–28.46 to –4.61)
B44 PR48		0.88 (0.68 to 1.02)	–11.68 (–30.05 to 1.95)
SOF24 + RBV (low dose 24		0.50 (0.24 to 0.78)	–46.86 (–70.99 to –20.18)
SOF12 + SIM12 + RBV12		0.99 (0.34 to 1.13)	–0.50 (–61.96 to 11.50)
SOF12 + RBV12		0.89 (0.54 to 1.09)	–10.12 (–43.47 to 7.72)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.97 to 1.14)	2.16 (–2.63 to 12.02)
DCV24 + ASU24		0.93 (0.82 to 1.05)	–7.03 (–17.28 to 4.35)
DCV12 + SOF12		1.01 (0.76 to 1.17)	1.21 (–22.86 to 13.86)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.79 to 1.17)	3.21 (–20.34 to 14.52)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12		0.99 (0.89 to 1.14)	–0.57 (–10.33 to 11.45)
GRZ12 + ELB12 + RBV12		0.95 (0.63 to 1.10)	–5.15 (–35.30 to 8.39)
DCV12 + ASU12 + BEC12 + RBV12		1.03 (0.86 to 1.16)	2.49 (–12.94 to 13.55)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.12)	–1.30 (–8.64 to 9.85)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.74 to 1.14)	–0.74 (–25.31 to 11.48)
GRZ18 + ELB18 (50 mg q.d.)		0.98 (0.57 to 1.14)	–1.69 (–40.63 to 11.90)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.57 (0.00 to 1.11)	–40.07 (–95.28 to 9.32)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.65 to 1.14)	–0.46 (–33.09 to 11.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.66 to 1.15)	1.63 (–32.16 to 13.04)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.03 (0.98 to 1.10)	3.05 (–1.89 to 8.84)
T12 PR24-48 RGT q8		0.86 (0.76 to 0.95)	–13.29 (–23.23 to –4.63)
T12 PR24-48 RGT q12		0.87 (0.73 to 0.97)	–12.21 (–25.40 to –2.78)
T12 PR48 q8		0.85 (0.56 to 1.01)	–14.45 (–42.11 to 1.31)
SOF12 + PR12		0.88 (0.68 to 0.99)	–11.20 (–30.30 to –1.36)
SOF12 PR24-48 RGT		0.92 (0.71 to 1.04)	–7.20 (–27.19 to 3.56)
SIM12 PR24-48 RGT		0.84 (0.76 to 0.92)	–14.80 (–23.40 to –7.22)
B24 PR28-48 RGT		0.81 (0.70 to 0.91)	–17.97 (–28.73 to –8.56)
B44 PR48		0.87 (0.68 to 0.99)	–12.41 (–30.43 to –0.71)
SOF24 + RBV (low dose) 24		0.49 (0.24 to 0.76)	–48.12 (–70.76 to –22.79)
SOF12 + SIM12 + RBV12		0.98 (0.34 to 1.09)	–1.52 (–62.71 to 8.12)
SOF12 + RBV12		0.89 (0.53 to 1.04)	–10.66 (–43.82 to 3.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.97 to 1.08)	1.72 (–3.28 to 7.35)
DCV24 + ASU24		0.92 (0.82 to 1.00)	–7.55 (–17.38 to 0.27)
DCV12 + SOF12		1.01 (0.75 to 1.10)	0.79 (–23.29 to 8.97)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.79 to 1.10)	2.77 (–20.03 to 9.26)
GRZ12 + ELB12		0.99 (0.89 to 1.07)	–0.95 (–10.87 to 6.15)
GRZ12 + ELB12 + RBV12		0.94 (0.62 to 1.06)	–5.95 (–36.23 to 5.42)
DCV12 + ASU12 + BEC12 + RBV12		1.02 (0.87 to 1.10)	2.04 (–12.31 to 8.68)
DCV12 + ASU12 + BEC12		0.98 (0.91 to 1.05)	–1.92 (–8.75 to 4.74)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.74 to 1.08)	–1.28 (–25.26 to 7.10)
GRZ18 + ELB18 (50 mg q.d.)		0.98 (0.56 to 1.08)	–1.91 (–41.86 to 7.12)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.56 (0.00 to 1.08)	–41.17 (–95.46 to 7.08)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.99 (0.64 to 1.08)	–1.04 (–34.31 to 7.15)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.01 (0.66 to 1.10)	1.08 (–32.19 to 8.53)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.83 (0.73 to 0.91)	–16.47 (–26.04 to –8.84)
T12 PR24-48 RGT q12		0.84 (0.71 to 0.93)	–15.34 (–27.96 to –6.79)
T12 PR48 q8		0.82 (0.54 to 0.98)	–17.59 (–44.78 to –2.32)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.85 (0.65 to 0.95)	–14.48 (–34.06 to –4.35)
SOF12 PR24-48 RGT		0.90 (0.69 to 0.99)	–10.21 (–30.54 to –0.65)
SIM12 PR24-48 RGT		0.82 (0.74 to 0.88)	–17.98 (–25.94 to –11.08)
B24 PR28-48 RGT		0.78 (0.68 to 0.87)	–21.15 (–31.52 to –12.30)
B44 PR48		0.84 (0.66 to 0.95)	–15.51 (–33.48 to –4.91)
SOF24 + RBV (low dose) 24		0.47 (0.23 to 0.74)	–51.26 (–74.55 to –25.90)
SOF12 + SIM12 + RBV12		0.96 (0.33 to 1.04)	–4.22 (–65.76 to 3.97)
SOF12 + RBV12		0.86 (0.51 to 1.00)	–13.76 (–47.36 to –0.35)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.94 to 1.04)	–1.35 (–6.22 to 3.30)
DCV24 + ASU24		0.89 (0.79 to 0.96)	–10.73 (–20.20 to –3.42)
DCV12 + SOF12		0.98 (0.73 to 1.05)	–2.05 (–26.73 to 4.38)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.77 to 1.03)	–0.19 (–21.52 to 3.16)
GRZ12 + ELB12		0.96 (0.86 to 1.02)	–4.00 (–13.40 to 1.56)
GRZ12 + ELB12 + RBV12		0.91 (0.60 to 1.01)	–9.10 (–38.91 to 0.79)
DCV12 + ASU12 + BEC12 + RBV12		0.99 (0.85 to 1.04)	–0.84 (–14.81 to 4.09)
DCV12 + ASU12 + BEC12		0.95 (0.89 to 1.00)	–5.00 (–11.30 to 0.35)
GRZ12 + ELB12 (50 mg q.d.)		0.95 (0.71 to 1.03)	–4.58 (–28.30 to 3.11)
GRZ18 + ELB18 (50 mg q.d.)		0.95 (0.55 to 1.03)	–5.33 (–44.19 to 3.23)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.54 (0.00 to 1.03)	–44.40 (–98.04 to 3.05)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.96 (0.63 to 1.03)	–4.14 (–36.26 to 3.23)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.98 (0.64 to 1.05)	–2.00 (–34.66 to 4.49)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.01 (0.92 to 1.09)	1.11 (–6.50 to 6.74)
T12 PR48 q8		0.98 (0.64 to 1.23)	–1.29 (–30.44 to 17.47)
SOF12 + PR12		1.02 (0.78 to 1.20)	1.88 (–17.91 to 15.19)
SOF12 PR24-48 RGT		1.08 (0.83 to 1.26)	6.09 (–14.53 to 19.33)
SIM12 PR24-48 RGT		0.98 (0.87 to 1.12)	–1.45 (–11.30 to 8.93)
B24 PR28-48 RGT		0.94 (0.81 to 1.10)	–4.70 (–15.93 to 7.21)
B44 PR48		1.01 (0.78 to 1.20)	0.80 (–17.79 to 14.95)
SOF24 + RBV (low dose) 24		0.57 (0.28 to 0.90)	–34.49 (–59.34 to –7.57)
SOF12 + SIM12 + RBV12		1.14 (0.39 to 1.33)	11.79 (–49.93 to 24.07)
SOF12 + RBV12		1.03 (0.61 to 1.25)	2.60 (–31.89 to 18.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (1.08 to 1.35)	15.03 (7.27 to 25.04)
DCV24 + ASU24		1.07 (0.93 to 1.23)	5.74 (–5.58 to 16.43)
DCV12 + SOF12		1.17 (0.86 to 1.35)	13.78 (–11.40 to 25.34)
PAR/RIT12 + OMB12 + DAS12		1.19 (0.91 to 1.36)	15.81 (–7.79 to 25.66)
GRZ12 + ELB12		1.15 (1.01 to 1.32)	12.21 (1.07 to 22.91)
GRZ12 + ELB12 + RBV12		1.09 (0.72 to 1.29)	7.24 (–23.56 to 20.92)
DCV12 + ASU12 + BEC12 + RBV12		1.18 (1.01 to 1.36)	14.95 (0.96 to 25.69)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		1.14 (1.04 to 1.29)	11.36 (3.21 to 21.25)
GRZ12 + ELB12 (50 mg q.d.)		1.14 (0.85 to 1.32)	11.66 (–12.35 to 23.29)
GRZ18 + ELB18 (50 mg q.d.)		1.13 (0.65 to 1.32)	10.43 (–28.61 to 23.27)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.66 (0.00 to 1.29)	–27.71 (–83.26 to 22.29)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.14 (0.76 to 1.33)	11.80 (–19.82 to 23.88)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.17 (0.76 to 1.35)	13.86 (–19.44 to 25.12)
T12 PR48 q8	T12 PR24-48 RGT q12	0.97 (0.63 to 1.25)	–2.34 (–31.60 to 18.31)
SOF12 + PR12		1.01 (0.77 to 1.23)	0.91 (–19.36 to 16.38)
SOF12 PR24-48 RGT		1.06 (0.81 to 1.29)	4.98 (–16.15 to 20.56)
SIM12 PR24-48 RGT		0.97 (0.85 to 1.15)	–2.48 (–13.46 to 10.37)
B24 PR28-48 RGT		0.93 (0.79 to 1.12)	–5.70 (–17.80 to 8.62)
B44 PR48		1.00 (0.77 to 1.23)	–0.17 (–19.11 to 16.22)
SOF24 + RBV (low dose) 24		0.57 (0.27 to 0.91)	–35.22 (–60.98 to –7.18)
SOF12 + SIM12 + RBV12		1.13 (0.39 to 1.35)	10.55 (–51.27 to 25.31)
SOF12 + RBV12		1.02 (0.60 to 1.27)	1.52 (–32.97 to 19.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (1.06 to 1.39)	13.91 (5.31 to 26.97)
DCV24 + ASU24		1.06 (0.92 to 1.25)	4.66 (–7.26 to 17.70)
DCV12 + SOF12		1.15 (0.85 to 1.38)	12.52 (–12.39 to 26.88)
PAR/RIT12 + OMB12 + DAS12		1.18 (0.89 to 1.39)	14.61 (–9.31 to 27.46)
GRZ12 + ELB12		1.13 (0.99 to 1.35)	10.97 (–0.61 to 24.68)
GRZ12 + ELB12 + RBV12		1.07 (0.71 to 1.31)	5.93 (–24.56 to 22.04)
DCV12 + ASU12 + BEC12 + RBV12		1.17 (0.99 to 1.39)	13.87 (–0.66 to 27.52)
DCV12 + ASU12 + BEC12		1.13 (1.01 to 1.33)	10.26 (0.94 to 23.32)
GRZ12 + ELB12 (50 mg q.d.)		1.13 (0.84 to 1.35)	10.43 (–13.05 to 24.76)
GRZ18 + ELB18 (50 mg q.d.)		1.11 (0.65 to 1.35)	9.23 (–29.61 to 24.72)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.65 (0.00 to 1.30)	–28.62 (–84.95 to 22.52)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.13 (0.75 to 1.36)	10.57 (–21.22 to 25.44)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.15 (0.75 to 1.38)	12.63 (–20.88 to 26.93)
SOF12 + PR12	T12 PR48 q8	1.04 (0.73 to 1.59)	3.07 (–23.91 to 32.00)
SOF12 PR24-48 RGT		1.08 (0.80 to 1.71)	6.64 (–17.78 to 38.41)
SIM12 PR24-48 RGT		1.00 (0.81 to 1.52)	–0.35 (–17.92 to 27.54)
B24 PR28-48 RGT		0.96 (0.76 to 1.47)	–3.29 (–22.32 to 25.21)
B44 PR48		1.03 (0.75 to 1.59)	2.09 (–21.88 to 31.80)
SOF24 + RBV (low dose) 24		0.60 (0.27 to 1.09)	–31.97 (–62.65 to 5.60)
SOF12 + SIM12 + RBV12		1.15 (0.39 to 1.79)	11.81 (–49.80 to 43.02)
SOF12 + RBV12		1.04 (0.61 to 1.64)	3.48 (–34.46 to 35.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.21 (1.01 to 1.81)	16.45 (0.88 to 43.10)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.08 (0.88 to 1.65)	6.73 (–11.10 to 34.22)
DCV12 + SOF12		1.17 (0.94 to 1.69)	13.78 (–4.70 to 38.11)
PAR/RIT12 + OMB12 + DAS12		1.21 (0.87 to 1.83)	16.74 (–11.69 to 44.13)
GRZ12 + ELB12		1.17 (0.96 to 1.77)	13.27 (–4.07 to 41.35)
GRZ12 + ELB12 + RBV12		1.10 (0.69 to 1.73)	7.95 (–26.50 to 39.28)
DCV12 + ASU12 + BEC12 + RBV12		1.20 (0.97 to 1.83)	15.85 (–2.39 to 44.25)
DCV12 + ASU12 + BEC12		1.16 (0.97 to 1.75)	12.66 (–3.10 to 40.10)
GRZ12 + ELB12 (50 mg q.d.)		1.15 (0.84 to 1.80)	12.13 (–14.37 to 42.87)
GRZ18 + ELB18 (50 mg q.d.)		1.13 (0.66 to 1.77)	10.67 (–28.45 to 41.31)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.68 (0.00 to 1.57)	–25.06 (–87.83 to 34.55)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.15 (0.77 to 1.78)	12.27 (–19.20 to 41.86)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.17 (0.78 to 1.81)	13.99 (–18.15 to 43.73)
SOF12 PR24-48 RGT	SOF12 + PR12	1.05 (0.80 to 1.38)	4.06 (–17.70 to 24.74)
SIM12 PR24-48 RGT		0.96 (0.83 to 1.26)	–3.65 (–15.84 to 16.35)
B24 PR28-48 RGT		0.92 (0.77 to 1.22)	–6.63 (–20.63 to 14.06)
B44 PR48		0.99 (0.76 to 1.31)	–0.99 (–20.45 to 20.06)
SOF24 + RBV (low dose) 24		0.56 (0.28 to 0.91)	–35.83 (–61.71 to –6.25)
SOF12 + SIM12 + RBV12		1.11 (0.39 to 1.41)	9.05 (–51.25 to 27.66)
SOF12 + RBV12		1.00 (0.61 to 1.38)	0.28 (–33.50 to 24.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.16 (1.05 to 1.48)	13.05 (4.38 to 30.83)
DCV24 + ASU24		1.04 (0.89 to 1.37)	3.54 (–9.55 to 23.54)
DCV12 + SOF12		1.14 (0.84 to 1.52)	11.42 (–14.29 to 32.93)
PAR/RIT12 + OMB12 + DAS12		1.16 (0.89 to 1.52)	13.45 (–9.28 to 33.60)
GRZ12 + ELB12		1.12 (0.97 to 1.47)	10.13 (–2.57 to 30.06)
GRZ12 + ELB12 + RBV12		1.07 (0.70 to 1.41)	5.52 (–25.98 to 26.94)
DCV12 + ASU12 + BEC12 + RBV12		1.16 (0.95 to 1.51)	13.00 (–4.58 to 32.77)
DCV12 + ASU12 + BEC12		1.12 (0.98 to 1.46)	9.55 (–1.95 to 29.21)
GRZ12 + ELB12 (50 mg q.d.)		1.11 (0.82 to 1.47)	9.43 (–16.06 to 30.29)
GRZ18 + ELB18 (50 mg q.d.)		1.10 (0.64 to 1.46)	8.12 (–30.66 to 30.23)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.65 (0.00 to 1.37)	–28.52 (–87.81 to 25.97)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.11 (0.74 to 1.48)	9.25 (–22.35 to 31.21)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.14 (0.73 to 1.51)	11.57 (–22.98 to 32.36)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.91 (0.79 to 1.19)	–7.56 (–20.01 to 13.18)
B24 PR28-48 RGT		0.88 (0.74 to 1.16)	–10.79 (–24.41 to 10.85)
B44 PR48		0.95 (0.72 to 1.24)	–4.79 (–25.55 to 16.52)
SOF24 + RBV (low dose) 24		0.54 (0.26 to 0.90)	–39.76 (–66.75 to –7.32)
SOF12 + SIM12 + RBV12		1.06 (0.37 to 1.37)	5.12 (–54.80 to 26.29)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12		0.96 (0.57 to 1.32)	–3.44 (–37.66 to 22.23)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.10 (0.99 to 1.43)	8.96 (–1.10 to 29.04)
DCV24 + ASU24		1.00 (0.85 to 1.30)	–0.32 (–13.77 to 20.05)
DCV12 + SOF12		1.08 (0.80 to 1.40)	7.45 (–17.99 to 27.75)
PAR/RIT12 + OMB12 + DAS12		1.11 (0.85 to 1.44)	9.53 (–13.73 to 30.07)
GRZ12 + ELB12		1.07 (0.93 to 1.40)	5.85 (–6.36 to 27.30)
GRZ12 + ELB12 + RBV12		1.02 (0.67 to 1.34)	1.46 (–29.20 to 23.32)
DCV12 + ASU12 + BEC12 + RBV12		1.10 (0.93 to 1.42)	8.76 (–6.64 to 28.80)
DCV12 + ASU12 + BEC12		1.06 (0.94 to 1.38)	5.22 (–5.30 to 25.49)
GRZ12 + ELB12 (50 mg q.d.)		1.06 (0.79 to 1.39)	5.28 (–18.53 to 26.53)
GRZ18 + ELB18 (50 mg q.d.)		1.05 (0.61 to 1.38)	4.04 (–34.05 to 26.48)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.62 (0.00 to 1.31)	–33.03 (–91.64 to 22.75)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.06 (0.71 to 1.38)	5.26 (–25.84 to 26.34)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.08 (0.73 to 1.40)	7.46 (–23.96 to 27.49)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.96 (0.83 to 1.10)	–3.11 (–14.32 to 7.75)
B44 PR48		1.03 (0.80 to 1.21)	2.47 (–15.98 to 15.49)
SOF24 + RBV (low dose) 24		0.58 (0.28 to 0.92)	–33.25 (–58.26 to –6.52)
SOF12 + SIM12 + RBV12		1.17 (0.41 to 1.34)	13.36 (–47.56 to 24.93)
SOF12 + RBV12		1.05 (0.62 to 1.26)	4.16 (–30.44 to 19.86)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.21 (1.11 to 1.34)	16.64 (9.55 to 24.70)
DCV24 + ASU24		1.09 (1.01 to 1.18)	7.21 (0.79 to 13.15)
DCV12 + SOF12		1.19 (0.89 to 1.35)	15.58 (–8.98 to 25.29)
PAR/RIT12 + OMB12 + DAS12		1.22 (0.92 to 1.36)	17.50 (–6.08 to 25.82)
GRZ12 + ELB12		1.17 (1.04 to 1.31)	13.77 (2.99 to 22.81)
GRZ12 + ELB12 + RBV12		1.11 (0.73 to 1.30)	8.72 (–21.61 to 22.03)
DCV12 + ASU12 + BEC12 + RBV12		1.21 (1.03 to 1.35)	16.76 (2.11 to 25.43)
DCV12 + ASU12 + BEC12		1.16 (1.06 to 1.29)	12.95 (5.32 to 21.31)
GRZ12 + ELB12 (50 mg q.d.)		1.17 (0.86 to 1.33)	13.25 (–11.08 to 23.84)
GRZ18 + ELB18 (50 mg q.d.)		1.15 (0.67 to 1.32)	12.37 (–26.26 to 23.54)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.67 (0.00 to 1.30)	–26.40 (–81.33 to 22.96)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.17 (0.76 to 1.33)	13.37 (–19.20 to 24.19)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.19 (0.78 to 1.35)	15.54 (–18.30 to 25.30)
B44 PR48	B24 PR28-48 RGT	1.07 (0.83 to 1.30)	5.47 (–13.85 to 20.55)
SOF24 + RBV (low dose) 24		0.61 (0.29 to 0.97)	–30.04 (–54.68 to –2.42)
SOF12 + SIM12 + RBV12		1.21 (0.42 to 1.43)	16.14 (–45.32 to 29.35)
SOF12 + RBV12		1.09 (0.66 to 1.35)	7.18 (–26.46 to 24.22)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.26 (1.13 to 1.46)	19.73 (10.93 to 30.47)
DCV24 + ASU24		1.14 (0.98 to 1.32)	10.47 (–1.70 to 21.62)
DCV12 + SOF12		1.24 (0.92 to 1.46)	18.29 (–6.35 to 30.72)
PAR/RIT12 + OMB12 + DAS12		1.27 (0.96 to 1.47)	20.49 (–3.41 to 31.27)
GRZ12 + ELB12		1.22 (1.06 to 1.42)	16.87 (5.15 to 27.99)
GRZ12 + ELB12 + RBV12		1.15 (0.76 to 1.39)	11.78 (–19.04 to 26.22)
DCV12 + ASU12 + BEC12 + RBV12		1.26 (1.06 to 1.46)	19.64 (4.74 to 30.69)
DCV12 + ASU12 + BEC12		1.21 (1.08 to 1.40)	16.08 (6.77 to 26.57)
GRZ12 + ELB12 (50 mg q.d.)		1.21 (0.89 to 1.43)	16.11 (–8.53 to 28.77)
GRZ18 + ELB18 (50 mg q.d.)		1.20 (0.69 to 1.42)	15.16 (–24.00 to 28.73)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.69 (0.00 to 1.38)	–23.25 (–79.11 to 27.20)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.21 (0.79 to 1.43)	16.30 (–16.28 to 29.08)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.24 (0.81 to 1.45)	18.42 (–14.81 to 30.48)
SOF24 + RBV (low dose) 24	B44 PR48	0.58 (0.27 to 0.94)	–34.12 (–62.76 to –4.10)
SOF12 + SIM12 + RBV12		1.12 (0.40 to 1.45)	10.09 (–50.09 to 29.91)
SOF12 + RBV12		1.02 (0.60 to 1.35)	1.71 (–33.34 to 23.98)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (1.04 to 1.50)	14.21 (3.31 to 32.11)
DCV24 + ASU24		1.06 (0.90 to 1.36)	4.81 (–8.96 to 23.14)
DCV12 + SOF12		1.15 (0.85 to 1.50)	12.43 (–12.69 to 32.47)
PAR/RIT12 + OMB12 + DAS12		1.18 (0.88 to 1.51)	14.51 (–10.09 to 32.94)
GRZ12 + ELB12		1.14 (0.98 to 1.46)	11.14 (–2.14 to 29.76)
GRZ12 + ELB12 + RBV12		1.07 (0.71 to 1.41)	6.12 (–24.68 to 26.98)
DCV12 + ASU12 + BEC12 + RBV12		1.17 (0.97 to 1.50)	14.01 (–2.45 to 32.17)
DCV12 + ASU12 + BEC12		1.13 (0.99 to 1.44)	10.46 (–1.07 to 28.54)
GRZ12 + ELB12 (50 mg q.d.)		1.13 (0.82 to 1.46)	10.64 (–15.71 to 29.85)
GRZ18 + ELB18 (50 mg q.d.)		1.11 (0.67 to 1.44)	8.93 (–27.79 to 29.24)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.65 (0.00 to 1.37)	–28.16 (–86.87 to 26.01)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.13 (0.75 to 1.46)	10.45 (–20.92 to 30.36)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.15 (0.75 to 1.48)	12.45 (–20.96 to 31.70)
SOF12 + SIM12 + RBV12	SOF24 + RBV (low dose) 24	1.91 (0.62 to 4.09)	43.16 (–19.55 to 72.48)
SOF12 + RBV12		1.73 (1.20 to 3.14)	34.18 (10.80 to 57.45)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.08 (1.34 to 4.25)	49.93 (24.18 to 73.08)
DCV24 + ASU24		1.88 (1.18 to 3.90)	40.53 (12.74 to 65.35)
DCV12 + SOF12		2.01 (1.23 to 4.22)	46.98 (14.96 to 72.92)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		2.06 (1.28 to 4.26)	49.66 (18.25 to 73.50)
GRZ12 + ELB12		2.01 (1.28 to 4.19)	46.65 (19.90 to 71.41)
GRZ12 + ELB12 + RBV12		1.87 (1.06 to 4.03)	40.39 (3.41 to 69.77)
DCV12 + ASU12 + BEC12 + RBV12		2.06 (1.32 to 4.26)	49.06 (22.50 to 74.05)
DCV12 + ASU12 + BEC12		2.00 (1.28 to 4.12)	46.15 (19.96 to 70.02)
GRZ12 + ELB12 (50 mg q.d.)		1.96 (1.19 to 4.21)	44.47 (12.87 to 72.84)
GRZ18 + ELB18 (50 mg q.d.)		1.90 (1.01 to 4.09)	42.50 (0.31 to 72.13)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.12 (0.01 to 3.46)	5.65 (–61.39 to 67.62)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.96 (1.12 to 4.14)	44.74 (7.64 to 72.46)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.99 (1.19 to 4.21)	46.16 (11.78 to 74.22)
SOF12 + RBV12	SOF12 + SIM12 + RBV12	0.92 (0.54 to 2.72)	–7.81 (–44.47 to 57.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.94 to 2.99)	2.96 (–5.53 to 64.03)
DCV24 + ASU24		0.93 (0.81 to 2.71)	–6.15 (–18.46 to 55.62)
DCV12 + SOF12		1.02 (0.75 to 2.91)	1.48 (–23.83 to 61.21)
PAR/RIT12 + OMB12 + DAS12		1.04 (0.79 to 3.01)	3.28 (–20.34 to 65.20)
GRZ12 + ELB12		1.00 (0.88 to 2.90)	0.08 (–11.47 to 61.05)
GRZ12 + ELB12 + RBV12		0.96 (0.65 to 2.61)	–3.59 (–33.20 to 53.68)
DCV12 + ASU12 + BEC12 + RBV12		1.03 (0.87 to 2.98)	3.14 (–12.73 to 64.25)
DCV12 + ASU12 + BEC12		0.99 (0.90 to 2.86)	–0.71 (–9.91 to 60.28)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.75 to 2.80)	–0.55 (–24.01 to 59.53)
GRZ18 + ELB18 (50 mg q.d.)		0.99 (0.58 to 2.83)	–1.35 (–39.04 to 59.86)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.62 (0.00 to 2.08)	–32.82 (–97.31 to 43.12)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.67 to 2.85)	–0.38 (–30.75 to 60.66)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.67 to 2.88)	1.49 (–31.26 to 62.00)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + RBV12	1.15 (0.99 to 1.91)	12.37 (–1.43 to 45.63)
DCV24 + ASU24		1.04 (0.86 to 1.75)	3.07 (–13.45 to 37.54)
DCV12 + SOF12		1.12 (0.84 to 1.90)	10.28 (–14.40 to 45.89)
PAR/RIT12 + OMB12 + DAS12		1.14 (0.90 to 1.90)	12.23 (–8.36 to 46.21)
GRZ12 + ELB12		1.11 (0.93 to 1.88)	9.18 (–6.90 to 43.85)
GRZ12 + ELB12 + RBV12		1.05 (0.68 to 1.76)	4.22 (–28.24 to 38.92)
DCV12 + ASU12 + BEC12 + RBV12		1.14 (0.95 to 1.92)	11.62 (–4.88 to 46.25)
DCV12 + ASU12 + BEC12		1.10 (0.94 to 1.86)	8.58 (–5.65 to 42.90)
GRZ12 + ELB12 (50 mg q.d.)		1.09 (0.80 to 1.90)	7.99 (–17.72 to 45.16)
GRZ18 + ELB18 (50 mg q.d.)		1.08 (0.63 to 1.86)	6.70 (–32.37 to 43.95)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.66 (0.00 to 1.61)	–27.89 (–91.17 to 35.50)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.09 (0.73 to 1.89)	7.82 (–23.60 to 44.90)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.11 (0.74 to 1.92)	9.76 (–22.28 to 46.25)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.90 (0.80 to 0.98)	–9.30 (–19.01 to –2.24)
DCV12 + SOF12		0.99 (0.74 to 1.07)	–0.82 (–24.58 to 6.06)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.77 to 1.07)	1.15 (–22.58 to 6.57)
GRZ12 + ELB12		0.97 (0.87 to 1.04)	–2.75 (–12.45 to 3.51)
GRZ12 + ELB12 + RBV12		0.92 (0.61 to 1.03)	–7.72 (–37.73 to 3.04)
DCV12 + ASU12 + BEC12 + RBV12		1.00 (0.86 to 1.07)	0.38 (–13.98 to 6.07)
DCV12 + ASU12 + BEC12		0.96 (0.89 to 1.02)	–3.62 (–10.22 to 1.96)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.72 to 1.05)	–3.24 (–26.76 to 4.63)
GRZ18 + ELB18 (50 mg q.d.)		0.96 (0.56 to 1.05)	–4.13 (–42.63 to 4.81)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.55 (0.00 to 1.05)	–43.00 (–96.81 to 4.79)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.64 to 1.05)	–3.04 (–34.65 to 5.01)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.65 to 1.07)	–0.65 (–33.58 to 6.38)
DCV12 + SOF12	DCV24 + ASU24	1.09 (0.81 to 1.25)	8.21 (–16.41 to 19.28)
PAR/RIT12 + OMB12 + DAS12		1.12 (0.85 to 1.26)	10.20 (–13.56 to 20.08)
GRZ12 + ELB12		1.08 (0.95 to 1.22)	6.53 (–4.28 to 16.92)
GRZ12 + ELB12 + RBV12		1.02 (0.68 to 1.19)	1.52 (–28.24 to 15.19)
DCV12 + ASU12 + BEC12 + RBV12		1.11 (0.94 to 1.25)	9.42 (–5.52 to 19.54)
DCV12 + ASU12 + BEC12		1.07 (0.97 to 1.20)	5.65 (–2.28 to 15.47)
GRZ12 + ELB12 (50 mg q.d.)		1.07 (0.79 to 1.22)	6.04 (–18.29 to 17.74)
GRZ18 + ELB18 (50 mg q.d.)		1.06 (0.62 to 1.22)	5.28 (–33.51 to 17.59)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.61 (0.00 to 1.20)	–33.66 (–88.71 to 16.24)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.07 (0.70 to 1.23)	6.09 (–26.34 to 18.15)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.09 (0.71 to 1.25)	8.26 (–25.50 to 19.28)
PAR/RIT12 + OMB12 + DAS12	DCV12 + SOF12	1.02 (0.76 to 1.37)	1.52 (–23.00 to 26.25)
GRZ12 + ELB12		0.98 (0.87 to 1.33)	–1.95 (–12.68 to 23.41)
GRZ12 + ELB12 + RBV12		0.94 (0.62 to 1.26)	–6.09 (–36.47 to 19.37)
DCV12 + ASU12 + BEC12 + RBV12		1.01 (0.86 to 1.37)	0.90 (–13.89 to 26.07)
DCV12 + ASU12 + BEC12		0.97 (0.89 to 1.31)	–2.85 (–10.64 to 21.84)
GRZ12 + ELB12 (50 mg q.d.)		0.98 (0.73 to 1.33)	–2.19 (–26.59 to 23.65)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.)		0.97 (0.57 to 1.34)	–2.83 (–41.21 to 24.13)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.57 (0.00 to 1.20)	–39.94 (–97.41 to 15.97)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.98 (0.65 to 1.32)	–1.76 (–33.09 to 22.95)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.00 (0.66 to 1.37)	–0.17 (–32.32 to 26.01)
GRZ12 + ELB12	PAR/RIT12 + OMB12 + DAS12	0.96 (0.87 to 1.25)	–3.62 (–13.14 to 18.32)
GRZ12 + ELB12 + RBV12		0.91 (0.62 to 1.18)	–8.30 (–36.65 to 13.74)
DCV12 + ASU12 + BEC12 + RBV12		0.99 (0.85 to 1.28)	–0.56 (–14.36 to 21.08)
DCV12 + ASU12 + BEC12		0.95 (0.89 to 1.26)	–4.73 (–11.29 to 18.81)
GRZ12 + ELB12 (50 mg q.d.)		0.96 (0.73 to 1.24)	–3.78 (–26.73 to 17.98)
GRZ18 + ELB18 (50 mg q.d.)		0.95 (0.56 to 1.22)	–4.49 (–43.01 to 17.39)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.56 (0.00 to 1.11)	–42.03 (–98.26 to 9.68)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.64 to 1.24)	–3.37 (–34.73 to 18.35)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.98 (0.65 to 1.28)	–1.59 (–33.86 to 21.38)
GRZ12 + ELB12 + RBV12	GRZ12 + ELB12	0.95 (0.63 to 1.09)	–4.76 (–34.40 to 7.94)
DCV12 + ASU12 + BEC12 + RBV12		1.03 (0.88 to 1.15)	2.86 (–11.21 to 12.42)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.10)	–0.89 (–8.29 to 8.83)
GRZ12 + ELB12 (50 mg q.d.)		1.00 (0.75 to 1.12)	–0.44 (–23.75 to 10.53)
GRZ18 + ELB18 (50 mg q.d.)		0.99 (0.58 to 1.12)	–1.36 (–39.28 to 10.39)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.57 (0.00 to 1.11)	–39.93 (–94.78 to 9.48)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.66 to 1.12)	–0.17 (–31.86 to 10.68)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.67 to 1.14)	1.91 (–30.81 to 12.27)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12 + RBV12	1.08 (0.90 to 1.64)	7.47 (–9.48 to 37.80)
DCV12 + ASU12 + BEC12		1.04 (0.93 to 1.58)	3.92 (–6.67 to 34.11)
GRZ12 + ELB12 (50 mg q.d.)		1.04 (0.87 to 1.41)	3.78 (–11.22 to 25.00)
GRZ18 + ELB18 (50 mg q.d.)		1.04 (0.66 to 1.43)	3.18 (–29.67 to 27.48)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.61 (0.00 to 1.36)	–33.33 (–92.99 to 25.69)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.04 (0.74 to 1.46)	3.84 (–22.40 to 28.78)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.07 (0.72 to 1.54)	5.89 (–24.70 to 32.68)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.96 (0.90 to 1.11)	–3.85 (–9.96 to 9.37)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.72 to 1.13)	–3.03 (–26.95 to 10.89)
GRZ18 + ELB18 (50 mg q.d.)		0.96 (0.56 to 1.13)	–3.90 (–41.75 to 10.79)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.56 (0.00 to 1.09)	–42.23 (–97.73 to 8.38)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.65 to 1.13)	–2.70 (–33.33 to 10.69)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.66 to 1.15)	–0.95 (–32.87 to 12.82)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	1.01 (0.75 to 1.10)	0.49 (–23.40 to 8.98)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.58 to 1.10)	–0.34 (–38.98 to 8.93)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.58 (0.00 to 1.10)	–39.18 (–93.43 to 8.84)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.01 (0.66 to 1.11)	0.64 (–31.16 to 9.37)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.03 (0.68 to 1.12)	2.89 (–29.30 to 10.38)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	0.99 (0.67 to 1.14)	–0.96 (–27.73 to 11.34)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.58 (0.00 to 1.23)	–37.92 (–95.73 to 17.65)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.78 to 1.15)	0.25 (–18.64 to 11.87)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.75 to 1.25)	1.55 (–21.70 to 18.97)
GRZ8 + ELB8 (50 mg q.d.) + RBV8	GRZ18 + ELB18 (50 mg q.d.)	0.60 (0.00 to 1.44)	–34.76 (–96.05 to 28.34)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.01 (0.82 to 1.46)	1.00 (–15.44 to 27.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.03 (0.82 to 1.57)	2.36 (–15.63 to 32.48)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ8 + ELB8 (50 mg q.d.) + RBV8	1.70 (0.78 to 401.30)	37.11 (–21.28 to 96.25)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.74 (0.79 to 406.90)	39.21 (–19.23 to 97.50)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	1.02 (0.77 to 1.32)	1.52 (–19.80 to 22.02)
Random effect model	Residual deviance	80.61 vs. 87 data points	
	Deviance information criteria	463.014	
Fixed effect model	Residual deviance	80.74 vs. 87 data points	
	Deviance information criteria	461.479	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 158: GENOTYPE 1A TREATMENT-NAIVE WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	2.18 (0.93 to 3.13)	44.50 (–2.89 to 65.56)
SIM12 + SOF12		2.29 (0.57 to 3.03)	49.85 (–15.83 to 64.96)
SOF12 + LDV12		2.59 (2.11 to 3.23)	59.42 (48.65 to 67.16)
SOF8 + LDV8 + RBV8		2.52 (1.82 to 3.16)	57.57 (32.61 to 65.97)
SOF12 + LDV12 + RBV12		2.63 (2.17 to 3.28)	60.82 (51.78 to 68.52)
SOF24 + LDV24 + RBV24		2.63 (2.16 to 3.28)	60.83 (51.53 to 68.38)
T12 PR24-48 RGT q8		1.80 (1.10 to 2.32)	29.94 (3.73 to 45.92)
T12 PR24-48 RGT q12		1.79 (0.81 to 2.45)	29.74 (–6.88 to 50.24)
T12 PR48 q8		2.16 (1.15 to 2.96)	44.05 (6.04 to 61.40)
SOF12 + PR12		1.84 (0.37 to 2.76)	31.77 (–23.38 to 58.75)
SIM12 PR24-48 RGT		1.86 (1.43 to 2.38)	31.91 (16.91 to 46.54)
SOF24 + RBV (low dose) 24		1.44 (0.26 to 2.84)	16.41 (–29.65 to 59.16)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.58 (2.07 to 3.24)	59.32 (45.60 to 67.40)
B24 PR28-48 RGT		1.63 (0.95 to 2.21)	23.72 (–1.74 to 43.22)
B44 PR48		1.94 (1.06 to 2.69)	35.57 (2.35 to 55.42)
GRZ12 + ELB12		2.40 (1.90 to 2.95)	52.47 (35.91 to 61.17)
DCV12 + ASU12 + BEC12 + RBV12		2.44 (1.55 to 3.09)	55.02 (20.83 to 65.50)
DCV12 + ASU12 + BEC12		2.25 (1.60 to 2.81)	47.21 (23.44 to 58.00)
GRZ12 + ELB12 (50 mg q.d.)		2.51 (1.73 to 3.24)	57.03 (29.66 to 67.92)
SIM12 + SOF12	SOF24 + RBV24	1.04 (0.27 to 2.36)	3.32 (–62.44 to 53.17)
SOF12 + LDV12		1.17 (0.97 to 2.62)	14.32 (–3.17 to 59.79)
SOF8 + LDV8 + RBV8		1.15 (0.83 to 2.55)	12.09 (–15.41 to 57.58)
SOF12 + LDV12 + RBV12		1.19 (1.00 to 2.67)	15.71 (–0.48 to 61.48)
SOF24 + LDV24 + RBV24		1.19 (0.99 to 2.64)	15.65 (–1.03 to 60.75)
T12 PR24-48 RGT q8		0.82 (0.49 to 1.87)	–14.61 (–46.66 to 33.67)
T12 PR24-48 RGT q12		0.82 (0.37 to 1.88)	–14.60 (–54.58 to 34.42)
T12 PR48 q8		0.99 (0.54 to 2.23)	–1.11 (–41.36 to 47.13)
SOF12 + PR12		0.86 (0.17 to 2.03)	–11.85 (–73.64 to 42.93)
SIM12 PR24-48 RGT		0.85 (0.59 to 1.96)	–12.27 (–38.45 to 36.75)
SOF24 + RBV (low dose) 24		0.67 (0.23 to 0.97)	–24.49 (–51.72 to –2.90)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.17 (0.95 to 2.61)	14.06 (–4.74 to 59.24)
B24 PR28-48 RGT		0.75 (0.42 to 1.75)	–20.53 (–52.09 to 29.67)
B44 PR48		0.89 (0.48 to 2.04)	–8.91 (–46.94 to 40.75)
GRZ12 + ELB12		1.09 (0.83 to 2.44)	7.32 (–15.63 to 53.22)
DCV12 + ASU12 + BEC12 + RBV12		1.11 (0.71 to 2.48)	9.15 (–26.44 to 55.62)
DCV12 + ASU12 + BEC12		1.02 (0.72 to 2.28)	1.91 (–26.03 to 48.15)
GRZ12 + ELB12 (50 mg q.d.)		1.13 (0.81 to 2.55)	11.01 (–17.09 to 57.66)
SOF12 + LDV12	SIM12 + SOF12	1.10 (0.97 to 4.42)	8.89 (–2.73 to 72.91)
SOF8 + LDV8 + RBV8		1.07 (0.87 to 4.18)	6.55 (–11.94 to 69.44)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12		1.12 (0.98 to 4.55)	10.47 (–1.96 to 75.92)
SOF24 + LDV24 + RBV24		1.12 (0.98 to 4.56)	10.40 (–2.35 to 75.29)
T12 PR24-48 RGT q8		0.79 (0.49 to 3.07)	–19.06 (–46.69 to 46.11)
T12 PR24-48 RGT q12		0.79 (0.38 to 3.02)	–18.73 (–55.01 to 45.70)
T12 PR48 q8		0.95 (0.56 to 3.62)	–4.87 (–40.48 to 58.75)
SOF12 + PR12		0.84 (0.26 to 1.87)	–13.35 (–57.40 to 27.07)
SIM12 PR24-48 RGT		0.81 (0.60 to 3.25)	–16.89 (–38.36 to 48.78)
SOF24 + RBV (low dose) 24		0.67 (0.12 to 2.70)	–26.92 (–80.74 to 45.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.10 (0.95 to 4.42)	8.76 (–4.55 to 73.22)
B24 PR28-48 RGT		0.72 (0.43 to 2.83)	–24.66 (–53.01 to 41.24)
B44 PR48		0.87 (0.48 to 3.40)	–12.00 (–47.57 to 54.01)
GRZ12 + ELB12		1.02 (0.83 to 4.14)	2.03 (–16.30 to 68.00)
DCV12 + ASU12 + BEC12 + RBV12		1.05 (0.70 to 4.20)	4.52 (–27.55 to 70.03)
DCV12 + ASU12 + BEC12		0.97 (0.72 to 3.75)	–2.69 (–26.56 to 60.55)
GRZ12 + ELB12 (50 mg q.d.)		1.07 (0.79 to 4.33)	6.43 (–20.41 to 71.71)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.99 (0.77 to 1.02)	–1.43 (–20.71 to 2.02)
SOF12 + LDV12 + RBV12		1.01 (0.96 to 1.10)	1.31 (–3.57 to 8.61)
SOF24 + LDV24 + RBV24		1.01 (0.96 to 1.10)	1.33 (–4.06 to 8.54)
T12 PR24-48 RGT q8		0.70 (0.43 to 0.89)	–29.58 (–54.51 to –10.14)
T12 PR24-48 RGT q12		0.69 (0.32 to 0.93)	–29.72 (–64.44 to –6.48)
T12 PR48 q8		0.85 (0.49 to 0.99)	–14.97 (–48.69 to –1.21)
SOF12 + PR12		0.72 (0.15 to 0.96)	–27.31 (–80.19 to –3.47)
SIM12 PR24-48 RGT		0.72 (0.56 to 0.90)	–27.43 (–42.59 to –9.22)
SOF24 + RBV (low dose) 24		0.56 (0.11 to 0.97)	–42.68 (–86.17 to –2.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.92 to 1.05)	0.03 (–7.53 to 4.29)
B24 PR28-48 RGT		0.63 (0.37 to 0.86)	–35.80 (–59.81 to –13.13)
B44 PR48		0.76 (0.42 to 0.96)	–23.46 (–55.46 to –3.52)
GRZ12 + ELB12		0.93 (0.77 to 1.04)	–6.76 (–21.86 to 3.35)
DCV12 + ASU12 + BEC12 + RBV12		0.96 (0.61 to 1.07)	–3.63 (–36.80 to 5.99)
DCV12 + ASU12 + BEC12		0.88 (0.65 to 1.00)	–12.08 (–33.92 to –0.44)
GRZ12 + ELB12 (50 mg q.d.)		0.98 (0.72 to 1.08)	–1.90 (–26.90 to 7.18)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.03 (0.97 to 1.37)	2.79 (–2.53 to 25.75)
SOF24 + LDV24 + RBV24		1.03 (0.97 to 1.36)	2.77 (–3.00 to 25.47)
T12 PR24-48 RGT q8		0.71 (0.45 to 1.01)	–27.42 (–51.24 to 0.38)
T12 PR24-48 RGT q12		0.71 (0.34 to 1.03)	–27.48 (–60.80 to 2.13)
T12 PR48 q8		0.87 (0.51 to 1.10)	–12.52 (–45.83 to 7.66)
SOF12 + PR12		0.74 (0.16 to 1.00)	–24.38 (–77.91 to –0.35)
SIM12 PR24-48 RGT		0.73 (0.57 to 1.05)	–25.33 (–40.94 to 3.75)
SOF24 + RBV (low dose) 24		0.58 (0.11 to 1.05)	–39.83 (–84.41 to 3.76)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.94 to 1.29)	1.35 (–5.66 to 20.77)
B24 PR28-48 RGT		0.65 (0.39 to 0.96)	–33.57 (–57.33 to –2.73)
B44 PR48		0.78 (0.44 to 1.08)	–21.20 (–52.76 to 6.25)
GRZ12 + ELB12		0.95 (0.80 to 1.25)	–5.03 (–19.00 to 18.15)
DCV12 + ASU12 + BEC12 + RBV12		0.98 (0.64 to 1.27)	–1.92 (–33.68 to 19.53)
DCV12 + ASU12 + BEC12		0.89 (0.67 to 1.17)	–10.07 (–30.86 to 12.40)
GRZ12 + ELB12 (50 mg q.d.)		1.00 (0.74 to 1.31)	–0.40 (–24.93 to 22.78)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.94 to 1.06)	–0.04 (–5.82 to 5.28)
T12 PR24-48 RGT q8		0.69 (0.42 to 0.87)	–31.00 (–56.59 to –12.49)
T12 PR24-48 RGT q12		0.68 (0.31 to 0.91)	–31.19 (–66.30 to –8.39)
T12 PR48 q8		0.83 (0.47 to 0.98)	–16.43 (–51.82 to –2.36)
SOF12 + PR12		0.70 (0.14 to 0.97)	–28.97 (–83.40 to –3.29)
SIM12 PR24-48 RGT		0.71 (0.55 to 0.87)	–28.82 (–44.23 to –12.13)
SOF24 + RBV (low dose) 24		0.55 (0.11 to 0.95)	–44.16 (–87.80 to –4.74)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.88 to 1.04)	–1.36 (–12.00 to 3.86)
B24 PR28-48 RGT		0.62 (0.36 to 0.84)	–37.23 (–61.88 to –15.16)
B44 PR48		0.75 (0.41 to 0.94)	–24.90 (–57.78 to –5.58)
GRZ12 + ELB12		0.92 (0.76 to 1.00)	–8.11 (–23.81 to 0.31)
DCV12 + ASU12 + BEC12 + RBV12		0.95 (0.60 to 1.03)	–5.05 (–39.16 to 3.07)
DCV12 + ASU12 + BEC12		0.86 (0.63 to 0.97)	–13.49 (–35.86 to –2.91)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.71 to 1.04)	–3.37 (–28.26 to 3.99)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.68 (0.42 to 0.87)	–30.98 (–56.70 to –12.29)
T12 PR24-48 RGT q12		0.68 (0.31 to 0.91)	–31.15 (–66.29 to –8.67)
T12 PR48 q8		0.83 (0.47 to 0.98)	–16.36 (–51.88 to –1.84)
SOF12 + PR12		0.71 (0.14 to 0.97)	–28.91 (–83.39 to –2.90)
SIM12 PR24-48 RGT		0.71 (0.55 to 0.87)	–28.83 (–44.30 to –11.92)
SOF24 + RBV (low dose) 24		0.55 (0.11 to 0.95)	–44.14 (–87.46 to –4.52)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.88 to 1.05)	–1.35 (–12.11 to 4.24)
B24 PR28-48 RGT		0.62 (0.36 to 0.85)	–37.25 (–61.99 to –14.79)
B44 PR48		0.75 (0.41 to 0.94)	–24.85 (–57.21 to –5.49)
GRZ12 + ELB12		0.92 (0.76 to 1.00)	–8.12 (–23.80 to 0.39)
DCV12 + ASU12 + BEC12 + RBV12		0.95 (0.60 to 1.04)	–5.00 (–39.35 to 3.28)
DCV12 + ASU12 + BEC12		0.86 (0.63 to 0.97)	–13.42 (–36.09 to –2.76)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.71 to 1.05)	–3.28 (–28.57 to 4.59)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.00 (0.60 to 1.31)	–0.25 (–23.60 to 17.08)
T12 PR48 q8		1.21 (0.65 to 1.96)	14.16 (–26.07 to 42.41)
SOF12 + PR12		1.03 (0.21 to 1.75)	1.93 (–56.23 to 36.51)
SIM12 PR24-48 RGT		1.03 (0.76 to 1.77)	1.89 (–19.07 to 32.50)
SOF24 + RBV (low dose) 24		0.81 (0.16 to 1.72)	–12.55 (–61.44 to 35.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.44 (1.10 to 2.32)	29.41 (8.54 to 54.27)
B24 PR28-48 RGT		0.91 (0.53 to 1.56)	–6.11 (–34.67 to 25.24)
B44 PR48		1.09 (0.59 to 1.84)	5.80 (–29.95 to 37.21)
GRZ12 + ELB12		1.33 (1.01 to 2.18)	22.43 (0.55 to 48.51)
DCV12 + ASU12 + BEC12 + RBV12		1.36 (0.85 to 2.19)	24.48 (–11.09 to 50.63)
DCV12 + ASU12 + BEC12		1.25 (0.87 to 2.00)	17.04 (–9.66 to 42.75)
GRZ12 + ELB12 (50 mg q.d.)		1.39 (0.96 to 2.30)	26.62 (–2.71 to 53.45)
T12 PR48 q8	T12 PR24-48 RGT q12	1.21 (0.64 to 2.56)	14.09 (–27.96 to 50.46)
SOF12 + PR12		1.03 (0.21 to 2.15)	2.14 (–57.99 to 42.59)
SIM12 PR24-48 RGT		1.03 (0.73 to 2.37)	2.09 (–22.22 to 42.69)
SOF24 + RBV (low dose) 24		0.82 (0.15 to 2.09)	–11.59 (–63.23 to 41.16)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.44 (1.06 to 3.12)	29.54 (5.03 to 64.43)
B24 PR28-48 RGT		0.91 (0.52 to 2.04)	–5.83 (–37.32 to 34.01)
B44 PR48		1.09 (0.59 to 2.39)	5.96 (–31.41 to 45.34)
GRZ12 + ELB12		1.33 (0.97 to 2.89)	22.57 (–2.51 to 57.82)
DCV12 + ASU12 + BEC12 + RBV12		1.36 (0.84 to 2.90)	24.52 (–12.42 to 60.20)
DCV12 + ASU12 + BEC12		1.26 (0.85 to 2.64)	17.15 (–11.84 to 51.94)
GRZ12 + ELB12 (50 mg q.d.)		1.39 (0.95 to 3.02)	26.66 (–4.26 to 62.85)
SOF12 + PR12	T12 PR48 q8	0.87 (0.18 to 1.53)	–10.85 (–68.86 to 27.76)
SIM12 PR24-48 RGT		0.85 (0.62 to 1.61)	–12.13 (–34.46 to 28.94)
SOF24 + RBV (low dose) 24		0.68 (0.13 to 1.54)	–25.35 (–75.60 to 28.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.18 (1.02 to 2.00)	14.79 (1.49 to 46.73)
B24 PR28-48 RGT		0.75 (0.44 to 1.44)	–20.15 (–48.48 to 21.59)
B44 PR48		0.91 (0.49 to 1.68)	–7.84 (–43.82 to 33.15)
GRZ12 + ELB12		1.10 (0.87 to 1.94)	7.96 (–11.39 to 43.99)
DCV12 + ASU12 + BEC12 + RBV12		1.12 (0.74 to 1.99)	10.13 (–22.42 to 46.12)
DCV12 + ASU12 + BEC12		1.03 (0.74 to 1.84)	2.72 (–22.43 to 39.24)
GRZ12 + ELB12 (50 mg q.d.)		1.15 (0.83 to 2.06)	12.10 (–14.78 to 48.74)
SIM12 PR24-48 RGT	SOF12 + PR12	1.00 (0.67 to 5.13)	0.08 (–30.04 to 58.00)
SOF24 + RBV (low dose) 24		0.82 (0.15 to 4.59)	–11.85 (–71.57 to 60.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.39 (1.03 to 6.75)	26.92 (2.76 to 80.83)
B24 PR28-48 RGT		0.89 (0.50 to 4.32)	–7.77 (–42.61 to 50.89)
B44 PR48		1.05 (0.57 to 4.99)	3.70 (–36.19 to 61.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12		1.29 (0.91 to 6.45)	20.07 (–7.92 to 76.28)
DCV12 + ASU12 + BEC12 + RBV12		1.31 (0.80 to 6.39)	21.36 (–17.17 to 77.72)
DCV12 + ASU12 + BEC12		1.21 (0.80 to 5.94)	14.28 (–17.24 to 70.46)
GRZ12 + ELB12 (50 mg q.d.)		1.34 (0.90 to 6.73)	23.78 (–8.92 to 80.23)
SOF24 + RBV (low dose) 24	SIM12 PR24-48 RGT	0.78 (0.14 to 1.51)	–15.57 (–64.51 to 30.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.39 (1.09 to 1.79)	27.24 (7.09 to 42.68)
B24 PR28-48 RGT		0.88 (0.49 to 1.26)	–8.16 (–38.04 to 15.40)
B44 PR48		1.05 (0.56 to 1.49)	3.38 (–32.72 to 28.55)
GRZ12 + ELB12		1.29 (0.98 to 1.67)	20.32 (–1.42 to 36.72)
DCV12 + ASU12 + BEC12 + RBV12		1.32 (0.81 to 1.73)	22.60 (–14.05 to 40.28)
DCV12 + ASU12 + BEC12		1.22 (0.83 to 1.58)	15.05 (–13.35 to 32.58)
GRZ12 + ELB12 (50 mg q.d.)		1.35 (0.94 to 1.77)	24.55 (–4.83 to 42.48)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + RBV (low dose) 24	1.79 (1.02 to 9.24)	42.36 (2.13 to 86.07)
B24 PR28-48 RGT		1.12 (0.51 to 5.94)	6.54 (–41.42 to 57.48)
B44 PR48		1.32 (0.58 to 7.12)	17.27 (–34.65 to 69.13)
GRZ12 + ELB12		1.66 (0.92 to 8.53)	35.33 (–6.98 to 80.33)
DCV12 + ASU12 + BEC12 + RBV12		1.67 (0.84 to 8.58)	36.52 (–13.28 to 82.99)
DCV12 + ASU12 + BEC12		1.55 (0.82 to 8.06)	29.54 (–15.75 to 76.33)
GRZ12 + ELB12 (50 mg q.d.)		1.72 (0.93 to 8.86)	38.71 (–5.90 to 84.28)
B24 PR28-48 RGT	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.63 (0.37 to 0.88)	–35.60 (–59.87 to –11.26)
B44 PR48		0.76 (0.42 to 0.98)	–23.27 (–55.33 to –2.01)
GRZ12 + ELB12		0.93 (0.77 to 1.07)	–6.66 (–21.50 to 6.00)
DCV12 + ASU12 + BEC12 + RBV12		0.96 (0.62 to 1.09)	–3.54 (–36.45 to 8.13)
DCV12 + ASU12 + BEC12		0.88 (0.65 to 1.02)	–11.89 (–33.76 to 1.41)
GRZ12 + ELB12 (50 mg q.d.)		0.98 (0.72 to 1.12)	–1.84 (–26.61 to 10.06)
B44 PR48	B24 PR28-48 RGT	1.19 (0.63 to 2.14)	11.63 (–25.54 to 43.27)
GRZ12 + ELB12		1.47 (1.05 to 2.47)	28.61 (3.36 to 53.49)
DCV12 + ASU12 + BEC12 + RBV12		1.49 (0.90 to 2.53)	30.54 (–6.78 to 56.23)
DCV12 + ASU12 + BEC12		1.38 (0.90 to 2.33)	23.28 (–7.09 to 48.52)
GRZ12 + ELB12 (50 mg q.d.)		1.53 (1.02 to 2.65)	32.63 (1.71 to 59.33)
GRZ12 + ELB12	B44 PR48	1.22 (0.92 to 2.21)	16.30 (–7.27 to 49.16)
DCV12 + ASU12 + BEC12 + RBV12		1.25 (0.77 to 2.23)	18.25 (–18.39 to 51.36)
DCV12 + ASU12 + BEC12		1.15 (0.80 to 2.06)	11.06 (–17.25 to 44.48)
GRZ12 + ELB12 (50 mg q.d.)		1.27 (0.89 to 2.34)	20.25 (–9.33 to 54.32)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12	1.03 (0.66 to 1.25)	2.76 (–30.60 to 18.55)
DCV12 + ASU12 + BEC12		0.94 (0.69 to 1.15)	–5.07 (–27.83 to 11.31)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.)		1.05 (0.77 to 1.28)	4.36 (–20.97 to 21.21)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.92 (0.73 to 1.30)	–7.22 (–25.40 to 18.07)
GRZ12 + ELB12 (50 mg q.d.)		1.01 (0.76 to 1.60)	1.32 (–22.42 to 35.51)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	1.11 (0.82 to 1.53)	9.25 (–16.10 to 33.08)
Random effect model	Residual deviance	45.62 vs. 46 data points	
	Deviance information criteria	254.423	
Fixed effect model	Residual deviance	46.9 vs. 46 data points	
	Deviance information criteria	254.213	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 159: GENOTYPE 1B TREATMENT-NAIVE WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.58 (0.40 to 2.09)	31.10 (–33.98 to 50.27)
SOF12 + LDV12		1.83 (1.57 to 2.19)	44.52 (35.43 to 53.15)
SOF8 + LDV8 + RBV8		1.75 (0.97 to 2.13)	40.83 (–1.28 to 51.73)
SOF12 + LDV12 + RBV12		1.82 (1.56 to 2.17)	43.84 (34.67 to 52.60)
SOF24 + LDV24 + RBV24		1.83 (1.57 to 2.19)	44.46 (35.35 to 53.36)
T12 PR24-48 RGT q8		1.53 (1.26 to 1.80)	28.37 (14.18 to 38.30)
T12 PR24-48 RGT q12		1.57 (1.20 to 1.90)	30.90 (10.88 to 42.32)
T12 PR48 q8		0.92 (0.16 to 1.82)	–4.23 (–48.77 to 39.73)
SIM12 PR24-48 RGT		1.59 (1.39 to 1.86)	31.80 (23.06 to 39.99)
SOF24 + RBV (low dose) 24		1.52 (0.30 to 2.07)	28.14 (–39.93 to 49.83)
PAR/RIT12 + OMB12 + DAS12		1.82 (1.44 to 2.19)	43.91 (24.96 to 53.73)
DCV24 + ASU24		1.71 (1.48 to 2.02)	38.17 (29.65 to 46.26)
SOF12 + PR12		1.53 (0.53 to 1.98)	29.01 (–24.98 to 46.68)
B44 PR48		1.38 (0.71 to 1.92)	20.83 (–15.87 to 43.88)
B24 PR28-48 RGT		1.43 (1.14 to 1.71)	23.04 (7.38 to 34.74)
GRZ12 + ELB12		1.84 (1.57 to 2.20)	44.78 (35.82 to 53.47)
DCV12 + ASU12 + BEC12 + RBV12		1.65 (0.46 to 2.08)	36.20 (–28.42 to 50.44)
DCV12 + ASU12 + BEC12		1.80 (1.54 to 2.15)	42.98 (33.26 to 52.06)
GRZ12 + ELB12 (50 mg q.d.)		1.67 (0.65 to 2.14)	36.56 (–19.78 to 51.94)
SOF12 + LDV12	SOF24 + RBV24	1.16 (0.98 to 4.17)	13.33 (–1.83 to 74.37)
SOF8 + LDV8 + RBV8		1.10 (0.59 to 4.02)	8.58 (–37.57 to 71.71)
SOF12 + LDV12 + RBV12		1.15 (0.97 to 4.18)	12.47 (–2.73 to 74.56)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24 + RBV24		1.16 (0.99 to 4.20)	13.30 (–1.24 to 74.83)
T12 PR24-48 RGT q8		0.97 (0.74 to 3.57)	–2.72 (–24.51 to 59.90)
T12 PR24-48 RGT q12		1.00 (0.72 to 3.59)	–0.36 (–25.49 to 61.26)
T12 PR48 q8		0.63 (0.12 to 1.99)	–30.15 (–82.00 to 33.56)
SIM12 PR24-48 RGT		1.01 (0.82 to 3.77)	0.71 (–17.35 to 65.41)
SOF24 + RBV (low dose) 24		0.98 (0.49 to 1.35)	–1.77 (–29.53 to 17.62)
PAR/RIT12 + OMB12 + DAS12		1.15 (0.89 to 4.14)	12.33 (–10.38 to 73.62)
DCV24 + ASU24		1.08 (0.90 to 3.95)	6.97 (–9.34 to 69.26)
SOF12 + PR12		0.99 (0.34 to 3.49)	–1.17 (–58.97 to 61.22)
B44 PR48		0.91 (0.44 to 3.04)	–7.96 (–52.32 to 53.06)
B24 PR28-48 RGT		0.91 (0.66 to 3.40)	–7.79 (–32.26 to 56.36)
GRZ12 + ELB12		1.16 (0.99 to 4.21)	13.48 (–0.95 to 75.21)
DCV12 + ASU12 + BEC12 + RBV12		1.04 (0.31 to 3.34)	3.77 (–57.59 to 62.58)
DCV12 + ASU12 + BEC12		1.14 (0.96 to 4.11)	11.56 (–3.84 to 72.92)
GRZ12 + ELB12 (50 mg q.d.)		1.06 (0.45 to 3.97)	5.14 (–49.36 to 69.75)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.52 to 1.02)	–2.23 (–46.52 to 1.65)
SOF12 + LDV12 + RBV12		0.99 (0.95 to 1.03)	–0.51 (–5.06 to 2.96)
SOF24 + LDV24 + RBV24		1.00 (0.96 to 1.05)	–0.17 (–3.46 to 4.42)
T12 PR24-48 RGT q8		0.84 (0.68 to 0.93)	–15.89 (–31.24 to –6.48)
T12 PR24-48 RGT q12		0.87 (0.65 to 0.97)	–13.25 (–34.37 to –3.29)
T12 PR48 q8		0.50 (0.09 to 0.92)	–49.06 (–89.27 to –7.95)
SIM12 PR24-48 RGT		0.87 (0.78 to 0.94)	–12.40 (–21.57 to –5.71)
SOF24 + RBV (low dose) 24		0.83 (0.18 to 1.02)	–16.38 (–80.89 to 1.45)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.82 to 1.05)	–0.02 (–17.85 to 4.65)
DCV24 + ASU24		0.94 (0.87 to 0.99)	–6.17 (–13.16 to –0.75)
SOF12 + PR12		0.85 (0.29 to 0.98)	–15.07 (–68.21 to –1.56)
B44 PR48		0.76 (0.39 to 0.97)	–23.31 (–59.96 to –3.34)
B24 PR28-48 RGT		0.78 (0.61 to 0.91)	–21.27 (–38.56 to –9.10)
GRZ12 + ELB12		1.00 (0.97 to 1.05)	0.17 (–3.39 to 4.82)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.25 to 1.02)	–7.25 (–73.93 to 2.27)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.04)	–1.22 (–8.51 to 3.35)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.37 to 1.03)	–6.99 (–62.34 to 2.67)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.02 (0.95 to 1.91)	1.81 (–4.48 to 46.44)
SOF24 + LDV24 + RBV24		1.02 (0.97 to 1.93)	2.25 (–2.92 to 47.05)
T12 PR24-48 RGT q8		0.87 (0.70 to 1.59)	–12.29 (–28.78 to 30.10)
T12 PR24-48 RGT q12		0.90 (0.67 to 1.63)	–9.62 (–31.26 to 32.83)
T12 PR48 q8		0.54 (0.10 to 1.20)	–43.18 (–86.18 to 12.04)
SIM12 PR24-48 RGT		0.90 (0.80 to 1.65)	–9.32 (–19.70 to 33.14)
SOF24 + RBV (low dose) 24		0.88 (0.19 to 1.70)	–11.67 (–76.86 to 37.23)
PAR/RIT12 + OMB12 + DAS12		1.02 (0.84 to 1.91)	1.98 (–15.00 to 46.41)
DCV24 + ASU24		0.96 (0.88 to 1.79)	–3.52 (–11.70 to 40.00)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		0.89 (0.31 to 1.55)	–10.01 (–63.97 to 29.57)
B44 PR48		0.81 (0.41 to 1.45)	–18.30 (–56.25 to 24.41)
B24 PR28-48 RGT		0.82 (0.63 to 1.49)	–17.32 (–35.94 to 25.47)
GRZ12 + ELB12		1.03 (0.97 to 1.94)	2.51 (–2.54 to 47.56)
DCV12 + ASU12 + BEC12 + RBV12		0.96 (0.26 to 1.57)	–3.51 (–68.49 to 31.45)
DCV12 + ASU12 + BEC12		1.01 (0.93 to 1.89)	1.11 (–6.83 to 45.26)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.39 to 1.75)	–3.08 (–59.20 to 39.06)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.97 to 1.06)	0.42 (–3.20 to 5.83)
T12 PR24-48 RGT q8		0.84 (0.69 to 0.94)	–15.19 (–30.41 to –5.59)
T12 PR24-48 RGT q12		0.87 (0.66 to 0.97)	–12.57 (–33.44 to –2.49)
T12 PR48 q8		0.50 (0.09 to 0.92)	–48.30 (–88.88 to –7.36)
SIM12 PR24-48 RGT		0.88 (0.78 to 0.95)	–11.71 (–21.09 to –4.93)
SOF24 + RBV (low dose) 24		0.84 (0.17 to 1.02)	–15.58 (–80.84 to 2.25)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.82 to 1.07)	0.46 (–17.78 to 6.07)
DCV24 + ASU24		0.94 (0.87 to 1.01)	–5.52 (–12.70 to 0.45)
SOF12 + PR12		0.85 (0.29 to 1.00)	–14.40 (–68.17 to –0.04)
B44 PR48		0.77 (0.39 to 0.97)	–22.70 (–59.44 to –2.61)
B24 PR28-48 RGT		0.79 (0.61 to 0.91)	–20.58 (–37.93 to –8.31)
GRZ12 + ELB12		1.01 (0.97 to 1.07)	0.73 (–3.00 to 6.15)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.25 to 1.04)	–6.64 (–73.38 to 3.77)
DCV12 + ASU12 + BEC12		0.99 (0.92 to 1.05)	–0.60 (–8.34 to 4.84)
GRZ12 + ELB12 (50 mg q.d.)		0.94 (0.37 to 1.04)	–6.32 (–61.67 to 3.91)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.84 (0.68 to 0.93)	–15.87 (–31.12 to –6.57)
T12 PR24-48 RGT q12		0.87 (0.65 to 0.96)	–13.19 (–34.18 to –3.55)
T12 PR48 q8		0.50 (0.09 to 0.92)	–49.07 (–89.30 to –8.01)
SIM12 PR24-48 RGT		0.87 (0.78 to 0.93)	–12.34 (–21.11 to –6.42)
SOF24 + RBV (low dose) 24		0.83 (0.17 to 1.01)	–16.31 (–80.99 to 1.19)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.82 to 1.03)	0.12 (–17.51 to 2.87)
DCV24 + ASU24		0.94 (0.87 to 0.98)	–6.09 (–13.05 to –1.48)
SOF12 + PR12		0.85 (0.29 to 1.00)	–15.09 (–69.45 to –0.37)
B44 PR48		0.76 (0.39 to 0.97)	–23.28 (–60.21 to –3.19)
B24 PR28-48 RGT		0.78 (0.61 to 0.90)	–21.21 (–38.52 to –9.31)
GRZ12 + ELB12		1.00 (0.97 to 1.04)	0.29 (–3.30 to 3.84)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.25 to 1.02)	–7.18 (–73.81 to 2.24)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.03)	–1.12 (–8.57 to 2.91)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.37 to 1.03)	–7.01 (–61.85 to 2.48)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.03 (0.86 to 1.16)	2.42 (–10.63 to 11.80)
T12 PR48 q8		0.60 (0.11 to 1.16)	–32.58 (–76.21 to 11.99)
SIM12 PR24-48 RGT		1.04 (0.91 to 1.27)	3.37 (–7.78 to 18.64)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		0.99 (0.21 to 1.34)	–0.43 (–65.73 to 23.83)
PAR/RIT12 + OMB12 + DAS12		1.19 (0.96 to 1.46)	15.27 (–3.63 to 31.17)
DCV24 + ASU24		1.12 (1.00 to 1.37)	9.56 (–0.26 to 24.85)
SOF12 + PR12		1.01 (0.35 to 1.30)	0.74 (–53.41 to 21.50)
B44 PR48		0.91 (0.46 to 1.25)	–7.21 (–44.96 to 18.16)
B24 PR28-48 RGT		0.94 (0.73 to 1.18)	–5.26 (–22.89 to 12.47)
GRZ12 + ELB12		1.20 (1.08 to 1.47)	16.15 (7.03 to 31.48)
DCV12 + ASU12 + BEC12 + RBV12		1.09 (0.29 to 1.38)	7.59 (–57.46 to 26.67)
DCV12 + ASU12 + BEC12		1.18 (1.05 to 1.45)	14.45 (4.00 to 29.95)
GRZ12 + ELB12 (50 mg q.d.)		1.10 (0.44 to 1.40)	8.21 (–46.51 to 27.50)
T12 PR48 q8	T12 PR24-48 RGT q12	0.59 (0.10 to 1.15)	–34.77 (–78.67 to 10.83)
SIM12 PR24-48 RGT		1.01 (0.88 to 1.33)	0.72 (–11.12 to 21.37)
SOF24 + RBV (low dose) 24		0.97 (0.21 to 1.36)	–2.63 (–67.46 to 24.69)
PAR/RIT12 + OMB12 + DAS12		1.15 (0.93 to 1.53)	12.57 (–6.29 to 33.95)
DCV24 + ASU24		1.08 (0.96 to 1.43)	7.00 (–3.64 to 27.67)
SOF12 + PR12		0.98 (0.34 to 1.34)	–1.67 (–56.38 to 23.33)
B44 PR48		0.89 (0.45 to 1.26)	–9.44 (–47.53 to 18.40)
B24 PR28-48 RGT		0.91 (0.71 to 1.23)	–7.83 (–25.91 to 14.88)
GRZ12 + ELB12		1.16 (1.04 to 1.54)	13.50 (3.86 to 34.67)
DCV12 + ASU12 + BEC12 + RBV12		1.06 (0.29 to 1.43)	4.83 (–58.96 to 28.71)
DCV12 + ASU12 + BEC12		1.14 (1.01 to 1.52)	11.77 (0.80 to 33.08)
GRZ12 + ELB12 (50 mg q.d.)		1.07 (0.44 to 1.45)	5.62 (–48.21 to 29.71)
SIM12 PR24-48 RGT	T12 PR48 q8	1.74 (0.92 to 9.86)	36.31 (–7.14 to 78.84)
SOF24 + RBV (low dose) 24		1.51 (0.38 to 8.31)	26.67 (–40.35 to 81.51)
PAR/RIT12 + OMB12 + DAS12		1.97 (1.05 to 10.78)	47.82 (3.86 to 88.47)
DCV24 + ASU24		1.87 (1.01 to 10.37)	42.71 (0.72 to 84.15)
SOF12 + PR12		1.61 (0.52 to 8.72)	30.24 (–32.87 to 78.61)
B44 PR48		1.49 (0.59 to 8.27)	23.50 (–32.15 to 73.15)
B24 PR28-48 RGT		1.56 (0.79 to 8.93)	27.37 (–18.30 to 72.27)
GRZ12 + ELB12		2.00 (1.09 to 11.12)	49.28 (7.98 to 89.88)
DCV12 + ASU12 + BEC12 + RBV12		1.70 (0.42 to 9.78)	35.68 (–37.77 to 84.73)
DCV12 + ASU12 + BEC12		1.97 (1.06 to 10.89)	47.38 (5.49 to 88.43)
GRZ12 + ELB12 (50 mg q.d.)		1.76 (0.58 to 9.76)	38.09 (–30.14 to 84.33)
SOF24 + RBV (low dose) 24	SIM12 PR24-48 RGT	0.95 (0.20 to 1.22)	–3.94 (–70.62 to 17.15)
PAR/RIT12 + OMB12 + DAS12		1.14 (0.93 to 1.28)	11.90 (–6.08 to 21.63)
DCV24 + ASU24		1.07 (1.00 to 1.17)	6.17 (0.14 to 13.58)
SOF12 + PR12		0.97 (0.33 to 1.19)	–2.74 (–55.53 to 15.03)
B44 PR48		0.87 (0.44 to 1.14)	–10.85 (–47.89 to 11.27)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B24 PR28-48 RGT		0.90 (0.70 to 1.06)	–8.64 (–25.47 to 4.44)
GRZ12 + ELB12		1.15 (1.07 to 1.28)	12.63 (6.34 to 21.67)
DCV12 + ASU12 + BEC12 + RBV12		1.06 (0.28 to 1.24)	4.84 (–60.12 to 18.57)
DCV12 + ASU12 + BEC12		1.13 (1.03 to 1.26)	11.03 (2.63 to 20.31)
GRZ12 + ELB12 (50 mg q.d.)		1.06 (0.42 to 1.25)	5.09 (–50.27 to 19.51)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	1.19 (0.90 to 5.68)	15.75 (–9.79 to 79.35)
DCV24 + ASU24		1.13 (0.91 to 5.39)	10.25 (–9.20 to 74.84)
SOF12 + PR12		1.01 (0.35 to 4.80)	1.24 (–57.61 to 69.99)
B44 PR48		0.94 (0.45 to 4.10)	–5.11 (–51.10 to 60.92)
B24 PR28-48 RGT		0.94 (0.67 to 4.59)	–4.68 (–31.33 to 62.10)
GRZ12 + ELB12		1.20 (0.99 to 5.75)	16.57 (–0.71 to 81.39)
DCV12 + ASU12 + BEC12 + RBV12		1.07 (0.32 to 4.48)	5.78 (–54.01 to 71.08)
DCV12 + ASU12 + BEC12		1.18 (0.97 to 5.60)	14.83 (–3.26 to 78.60)
GRZ12 + ELB12 (50 mg q.d.)		1.09 (0.45 to 5.23)	7.55 (–48.23 to 74.49)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.94 (0.87 to 1.16)	–5.85 (–13.34 to 12.52)
SOF12 + PR12		0.86 (0.29 to 1.08)	–14.10 (–68.57 to 7.16)
B44 PR48		0.77 (0.39 to 1.02)	–22.22 (–59.52 to 1.69)
B24 PR28-48 RGT		0.79 (0.61 to 0.99)	–20.44 (–38.19 to –0.65)
GRZ12 + ELB12		1.00 (0.97 to 1.23)	0.10 (–3.45 to 18.63)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.26 to 1.11)	–6.75 (–70.98 to 9.33)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.21)	–1.00 (–8.65 to 16.91)
GRZ12 + ELB12 (50 mg q.d.)		0.94 (0.37 to 1.15)	–6.24 (–60.68 to 12.61)
SOF12 + PR12	DCV24 + ASU24	0.90 (0.31 to 1.08)	–8.72 (–62.93 to 7.23)
B44 PR48		0.82 (0.41 to 1.05)	–16.96 (–53.97 to 4.16)
B24 PR28-48 RGT		0.84 (0.65 to 0.97)	–15.00 (–31.77 to –2.57)
GRZ12 + ELB12		1.07 (1.02 to 1.16)	6.35 (1.82 to 13.32)
DCV12 + ASU12 + BEC12 + RBV12		0.99 (0.26 to 1.12)	–1.12 (–67.47 to 10.52)
DCV12 + ASU12 + BEC12		1.05 (0.97 to 1.14)	4.77 (–2.89 to 12.05)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.39 to 1.13)	–0.93 (–55.94 to 11.39)
B44 PR48	SOF12 + PR12	0.92 (0.46 to 2.74)	–7.04 (–47.55 to 51.02)
B24 PR28-48 RGT		0.93 (0.69 to 2.68)	–5.73 (–28.89 to 48.46)
GRZ12 + ELB12		1.18 (1.00 to 3.48)	15.27 (0.38 to 70.02)
DCV12 + ASU12 + BEC12 + RBV12		1.06 (0.30 to 3.10)	5.16 (–57.46 to 61.92)
DCV12 + ASU12 + BEC12		1.16 (0.98 to 3.40)	13.43 (–1.97 to 67.62)
GRZ12 + ELB12 (50 mg q.d.)		1.08 (0.45 to 3.18)	6.39 (–46.34 to 61.92)
B24 PR28-48 RGT	B44 PR48	1.03 (0.72 to 2.04)	1.85 (–25.21 to 40.50)
GRZ12 + ELB12		1.32 (1.04 to 2.58)	23.57 (3.63 to 60.25)
DCV12 + ASU12 + BEC12 + RBV12		1.16 (0.33 to 2.31)	12.46 (–51.77 to 53.30)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		1.29 (1.01 to 2.53)	21.73 (1.13 to 58.48)
GRZ12 + ELB12 (50 mg q.d.)		1.18 (0.48 to 2.35)	13.63 (–40.85 to 54.26)
GRZ12 + ELB12	B24 PR28-48 RGT	1.28 (1.11 to 1.65)	21.54 (9.78 to 38.66)
DCV12 + ASU12 + BEC12 + RBV12		1.16 (0.32 to 1.55)	12.58 (–51.75 to 33.83)
DCV12 + ASU12 + BEC12		1.26 (1.08 to 1.62)	19.81 (7.18 to 36.96)
GRZ12 + ELB12 (50 mg q.d.)		1.17 (0.47 to 1.56)	13.22 (–41.49 to 34.80)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12	0.92 (0.24 to 1.02)	–7.56 (–74.50 to 1.80)
DCV12 + ASU12 + BEC12		0.99 (0.91 to 1.03)	–1.41 (–8.82 to 2.44)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.37 to 1.02)	–7.23 (–61.89 to 1.98)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	1.07 (0.97 to 3.92)	5.92 (–3.33 to 70.48)
GRZ12 + ELB12 (50 mg q.d.)		1.00 (0.43 to 3.76)	0.14 (–52.25 to 67.77)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	0.94 (0.38 to 1.07)	–5.60 (–60.28 to 6.14)
Random effect model	Residual deviance	45.58 vs. 50 data points	
	Deviance information criteria	247.456	
Fixed effect model	Residual deviance	45.25 vs. 50 data points	
	Deviance information criteria	245.819	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 160: GENOTYPE 1 TREATMENT-NAIVE WITH CIRRHOSIS — EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	2.25 (0.94 to 2.90)	50.46 (–2.42 to 63.43)
T12 PR24-48 RGT q8		1.44 (0.64 to 2.21)	17.19 (–13.98 to 43.46)
T12 PR24-48 RGT q12		1.54 (0.58 to 2.37)	21.12 (–16.20 to 49.42)
SOF12 + PR12		2.10 (1.14 to 2.74)	43.64 (5.26 to 58.96)
SIM12 PR24-48 RGT		1.68 (1.06 to 2.36)	26.51 (2.29 to 47.30)
B24 PR28-48 RGT		0.64 (0.17 to 1.65)	–13.83 (–34.32 to 24.54)
SOF12 + SIM12 + RBV12		2.29 (0.66 to 2.95)	51.78 (–13.39 to 64.62)
SOF24 + RBV24		1.76 (0.61 to 2.58)	29.83 (–15.32 to 55.42)
DCV24 + ASU24		2.28 (1.70 to 2.87)	50.05 (29.80 to 61.72)
SOF12 + LDV12		2.45 (1.97 to 3.02)	56.65 (42.78 to 65.23)
SOF12 + LDV12 + RBV12		2.45 (1.98 to 3.02)	56.74 (42.17 to 65.56)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24 + RBV24		2.46 (2.00 to 3.04)	57.23 (43.48 to 65.75)
GRZ12 + ELB12		2.49 (2.05 to 3.05)	58.03 (47.33 to 65.88)
DCV12 + ASU12 + BEC12 + RBV12		2.51 (2.07 to 3.08)	58.75 (48.75 to 66.55)
DCV12 + ASU12 + BEC12		1.00 (0.00 to 2.79)	–0.08 (–41.63 to 62.94)
GRZ12 + ELB12 (50 mg q.d.)		2.43 (1.91 to 3.01)	56.23 (38.73 to 65.20)
GRZ18 + ELB18 (50 mg q.d.)		2.36 (1.79 to 2.94)	53.45 (32.93 to 63.68)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.28 (1.63 to 2.87)	50.32 (25.34 to 61.67)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.44 (1.94 to 3.02)	56.60 (39.41 to 65.47)
T12 PR24-48 RGT q8	SIM12 + SOF12	0.66 (0.33 to 1.34)	–29.85 (–59.80 to 14.56)
T12 PR24-48 RGT q12		0.71 (0.29 to 1.51)	–25.82 (–62.43 to 20.82)
SOF12 + PR12		0.94 (0.60 to 1.87)	–5.69 (–33.03 to 35.75)
SIM12 PR24-48 RGT		0.75 (0.47 to 1.93)	–22.41 (–50.08 to 33.79)
B24 PR28-48 RGT		0.30 (0.08 to 1.01)	–60.19 (–87.82 to 0.26)
SOF12 + SIM12 + RBV12		1.01 (0.41 to 1.82)	0.97 (–48.26 to 37.31)
SOF24 + RBV24		0.80 (0.30 to 1.78)	–17.45 (–61.56 to 32.02)
DCV24 + ASU24		0.99 (0.76 to 2.53)	–0.73 (–22.38 to 54.06)
SOF12 + LDV12		1.06 (0.90 to 2.64)	5.39 (–9.34 to 58.09)
SOF12 + LDV12 + RBV12		1.06 (0.88 to 2.68)	5.66 (–11.30 to 59.63)
SOF24 + LDV24 + RBV24		1.07 (0.90 to 2.65)	6.13 (–9.47 to 59.04)
GRZ12 + ELB12		1.07 (0.95 to 2.68)	6.72 (–5.16 to 60.33)
DCV12 + ASU12 + BEC12 + RBV12		1.08 (0.96 to 2.74)	7.48 (–3.74 to 61.82)
DCV12 + ASU12 + BEC12		0.47 (0.00 to 1.80)	–42.01 (–96.11 to 38.65)
GRZ12 + ELB12 (50 mg q.d.)		1.05 (0.86 to 2.63)	4.69 (–12.97 to 58.57)
GRZ18 + ELB18 (50 mg q.d.)		1.03 (0.80 to 2.54)	2.48 (–18.43 to 55.73)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.74 to 2.42)	–0.28 (–24.47 to 51.85)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.06 (0.87 to 2.64)	5.53 (–12.00 to 58.60)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.06 (0.63 to 1.61)	3.49 (–19.08 to 24.39)
SOF12 + PR12		1.43 (1.05 to 2.44)	24.03 (3.40 to 44.97)
SIM12 PR24-48 RGT		1.16 (0.65 to 2.79)	9.01 (–25.50 to 47.62)
B24 PR28-48 RGT		0.46 (0.11 to 1.58)	–29.36 (–65.11 to 18.91)
SOF12 + SIM12 + RBV12		1.53 (0.50 to 3.18)	30.89 (–28.16 to 63.45)
SOF24 + RBV24		1.19 (0.59 to 2.06)	11.18 (–21.22 to 38.06)
DCV24 + ASU24		1.56 (1.03 to 3.64)	31.42 (2.14 to 66.24)
SOF12 + LDV12		1.69 (1.15 to 3.84)	39.01 (11.93 to 70.55)
SOF12 + LDV12 + RBV12		1.69 (1.15 to 3.85)	38.84 (11.45 to 70.72)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24 + RBV24		1.70 (1.16 to 3.87)	39.36 (12.53 to 71.18)
GRZ12 + ELB12		1.72 (1.17 to 3.92)	40.40 (13.97 to 72.29)
DCV12 + ASU12 + BEC12 + RBV12		1.73 (1.18 to 3.96)	41.32 (14.83 to 73.11)
DCV12 + ASU12 + BEC12		0.72 (0.00 to 2.85)	–14.60 (–72.15 to 60.08)
GRZ12 + ELB12 (50 mg q.d.)		1.67 (1.13 to 3.80)	37.90 (10.31 to 70.37)
GRZ18 + ELB18 (50 mg q.d.)		1.63 (1.07 to 3.72)	35.27 (5.12 to 68.25)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.56 (1.00 to 3.54)	31.85 (0.04 to 64.89)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.69 (1.14 to 3.82)	38.62 (10.76 to 70.38)
SOF12 + PR12	T12 PR24-48 RGT q12	1.34 (0.90 to 2.89)	20.33 (–6.55 to 50.19)
SIM12 PR24-48 RGT		1.09 (0.60 to 3.04)	5.43 (–31.62 to 48.98)
B24 PR28-48 RGT		0.44 (0.10 to 1.62)	–32.36 (–70.61 to 18.39)
SOF12 + SIM12 + RBV12		1.42 (0.47 to 3.64)	26.30 (–32.50 to 66.34)
SOF24 + RBV24		1.12 (0.69 to 1.80)	7.55 (–15.86 to 29.42)
DCV24 + ASU24		1.46 (0.96 to 4.01)	27.69 (–3.04 to 68.08)
SOF12 + LDV12		1.59 (1.07 to 4.23)	35.28 (6.18 to 72.56)
SOF12 + LDV12 + RBV12		1.58 (1.06 to 4.25)	35.06 (5.41 to 72.86)
SOF24 + LDV24 + RBV24		1.59 (1.08 to 4.26)	35.60 (7.10 to 73.39)
GRZ12 + ELB12		1.60 (1.10 to 4.36)	36.33 (8.54 to 74.52)
DCV12 + ASU12 + BEC12 + RBV12		1.62 (1.11 to 4.36)	37.32 (9.69 to 74.95)
DCV12 + ASU12 + BEC12		0.68 (0.00 to 2.98)	–17.24 (–77.73 to 60.95)
GRZ12 + ELB12 (50 mg q.d.)		1.56 (1.06 to 4.23)	34.02 (5.15 to 72.31)
GRZ18 + ELB18 (50 mg q.d.)		1.52 (1.00 to 4.09)	31.49 (–0.10 to 69.65)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.46 (0.93 to 3.86)	28.08 (–5.68 to 66.03)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.58 (1.05 to 4.22)	34.71 (4.28 to 72.49)
SIM12 PR24-48 RGT	SOF12 + PR12	0.80 (0.51 to 1.54)	–16.50 (–44.03 to 25.13)
B24 PR28-48 RGT		0.31 (0.08 to 0.92)	–54.95 (–82.61 to –4.24)
SOF12 + SIM12 + RBV12		1.08 (0.36 to 1.79)	6.66 (–49.92 to 39.44)
SOF24 + RBV24		0.85 (0.35 to 1.33)	–12.19 (–50.82 to 18.51)
DCV24 + ASU24		1.07 (0.82 to 2.03)	5.87 (–16.41 to 45.77)
SOF12 + LDV12		1.15 (0.95 to 2.15)	12.75 (–4.74 to 50.86)
SOF12 + LDV12 + RBV12		1.15 (0.94 to 2.15)	12.62 (–5.08 to 50.87)
SOF24 + LDV24 + RBV24		1.16 (0.95 to 2.15)	13.15 (–4.19 to 51.00)
GRZ12 + ELB12		1.17 (0.99 to 2.20)	13.89 (–0.89 to 52.44)
DCV12 + ASU12 + BEC12 + RBV12		1.18 (1.00 to 2.22)	14.80 (–0.17 to 53.33)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		0.50 (0.00 to 1.61)	–38.56 (–90.76 to 34.71)
GRZ12 + ELB12 (50 mg q.d.)		1.14 (0.93 to 2.12)	11.74 (–6.71 to 49.43)
GRZ18 + ELB18 (50 mg q.d.)		1.11 (0.86 to 2.07)	9.32 (–12.40 to 47.69)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.07 (0.78 to 1.98)	6.24 (–19.27 to 44.32)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.15 (0.93 to 2.14)	12.37 (–6.51 to 50.75)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.38 (0.10 to 1.10)	–39.65 (–68.36 to 4.94)
SOF12 + SIM12 + RBV12		1.34 (0.39 to 2.17)	23.30 (–41.85 to 51.79)
SOF24 + RBV24		1.05 (0.35 to 1.81)	3.29 (–46.10 to 37.21)
DCV24 + ASU24		1.34 (0.95 to 2.16)	22.38 (–3.49 to 49.81)
SOF12 + LDV12		1.45 (1.09 to 2.26)	29.48 (7.75 to 54.07)
SOF12 + LDV12 + RBV12		1.45 (1.08 to 2.26)	29.78 (6.61 to 53.87)
SOF24 + LDV24 + RBV24		1.46 (1.09 to 2.28)	30.29 (7.00 to 54.49)
GRZ12 + ELB12		1.47 (1.13 to 2.30)	31.05 (10.47 to 55.01)
DCV12 + ASU12 + BEC12 + RBV12		1.49 (1.14 to 2.32)	31.88 (11.99 to 55.64)
DCV12 + ASU12 + BEC12		0.60 (0.00 to 1.90)	–25.20 (–76.34 to 44.97)
GRZ12 + ELB12 (50 mg q.d.)		1.44 (1.06 to 2.25)	29.17 (4.99 to 53.44)
GRZ18 + ELB18 (50 mg q.d.)		1.40 (0.99 to 2.18)	26.52 (–1.03 to 50.84)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.35 (0.89 to 2.12)	23.15 (–8.46 to 48.76)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.45 (1.07 to 2.26)	29.65 (5.47 to 53.97)
SOF12 + SIM12 + RBV12	B24 PR28-48 RGT	3.35 (0.78 to 13.30)	61.35 (–8.48 to 89.63)
SOF24 + RBV24		2.58 (0.71 to 10.84)	40.70 (–13.01 to 77.56)
DCV24 + ASU24		3.53 (1.35 to 13.62)	62.59 (20.94 to 86.38)
SOF12 + LDV12		3.81 (1.50 to 14.37)	70.03 (30.91 to 90.11)
SOF12 + LDV12 + RBV12		3.81 (1.49 to 14.37)	70.05 (29.88 to 90.33)
SOF24 + LDV24 + RBV24		3.84 (1.49 to 14.51)	70.67 (30.61 to 90.82)
GRZ12 + ELB12		3.88 (1.54 to 14.61)	71.52 (33.45 to 90.79)
DCV12 + ASU12 + BEC12 + RBV12		3.92 (1.55 to 14.73)	72.51 (33.89 to 91.55)
DCV12 + ASU12 + BEC12		1.45 (0.01 to 9.95)	11.94 (–48.66 to 85.43)
GRZ12 + ELB12 (50 mg q.d.)		3.79 (1.45 to 14.19)	69.31 (27.66 to 89.45)
GRZ18 + ELB18 (50 mg q.d.)		3.68 (1.40 to 13.98)	66.34 (24.02 to 88.06)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		3.50 (1.33 to 13.44)	62.50 (19.57 to 85.90)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		3.81 (1.47 to 14.50)	69.69 (29.03 to 90.45)
SOF24 + RBV24	SOF12 + SIM12 + RBV12	0.80 (0.29 to 2.38)	–18.29 (–63.84 to 41.94)
DCV24 + ASU24		0.98 (0.76 to 3.43)	–1.59 (–23.25 to 62.66)
SOF12 + LDV12		1.04 (0.89 to 3.72)	4.02 (–10.43 to 69.25)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12 + RBV12		1.05 (0.88 to 3.69)	4.19 (–11.71 to 68.83)
SOF24 + LDV24 + RBV24		1.05 (0.89 to 3.73)	4.42 (–10.69 to 69.43)
GRZ12 + ELB12		1.06 (0.93 to 3.79)	5.45 (–6.98 to 70.57)
DCV12 + ASU12 + BEC12 + RBV12		1.07 (0.95 to 3.83)	5.96 (–5.12 to 72.34)
DCV12 + ASU12 + BEC12		0.48 (0.00 to 2.23)	–40.16 (–97.43 to 47.01)
GRZ12 + ELB12 (50 mg q.d.)		1.04 (0.86 to 3.69)	3.40 (–13.98 to 69.54)
GRZ18 + ELB18 (50 mg q.d.)		1.02 (0.79 to 3.56)	1.68 (–20.37 to 65.93)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.99 (0.71 to 3.44)	–1.29 (–27.41 to 62.52)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.04 (0.85 to 3.70)	4.00 (–14.58 to 68.66)
DCV24 + ASU24	SOF24 + RBV24	1.27 (0.90 to 3.73)	19.09 (–9.22 to 65.97)
SOF12 + LDV12		1.39 (1.00 to 3.96)	26.63 (0.08 to 70.84)
SOF12 + LDV12 + RBV12		1.38 (1.00 to 3.97)	26.26 (–0.13 to 71.20)
SOF24 + LDV24 + RBV24		1.39 (1.00 to 4.01)	26.84 (0.19 to 72.23)
GRZ12 + ELB12		1.40 (1.02 to 4.06)	27.77 (2.11 to 72.90)
DCV12 + ASU12 + BEC12 + RBV12		1.42 (1.04 to 4.09)	28.75 (3.65 to 73.71)
DCV12 + ASU12 + BEC12		0.60 (0.00 to 2.67)	–23.99 (–85.75 to 56.69)
GRZ12 + ELB12 (50 mg q.d.)		1.37 (0.99 to 3.92)	25.39 (–1.18 to 70.71)
GRZ18 + ELB18 (50 mg q.d.)		1.33 (0.91 to 3.82)	22.59 (–7.51 to 68.39)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.28 (0.84 to 3.64)	19.41 (–13.83 to 64.37)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.38 (0.98 to 3.96)	25.95 (–1.48 to 71.36)
SOF12 + LDV12	DCV24 + ASU24	1.07 (0.90 to 1.38)	6.18 (–8.94 to 26.71)
SOF12 + LDV12 + RBV12		1.07 (0.91 to 1.38)	6.60 (–8.87 to 26.59)
SOF24 + LDV24 + RBV24		1.08 (0.91 to 1.38)	7.08 (–8.55 to 26.69)
GRZ12 + ELB12		1.09 (0.96 to 1.39)	7.64 (–4.15 to 27.28)
DCV12 + ASU12 + BEC12 + RBV12		1.09 (0.98 to 1.40)	8.42 (–2.21 to 28.05)
DCV12 + ASU12 + BEC12		0.45 (0.00 to 1.23)	–48.27 (–93.63 to 17.94)
GRZ12 + ELB12 (50 mg q.d.)		1.07 (0.87 to 1.35)	6.05 (–11.67 to 25.03)
GRZ18 + ELB18 (50 mg q.d.)		1.04 (0.80 to 1.32)	3.52 (–17.76 to 23.07)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.71 to 1.30)	0.31 (–26.07 to 21.47)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.07 (0.88 to 1.38)	6.24 (–10.84 to 26.69)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	1.00 (0.88 to 1.13)	0.16 (–11.46 to 10.60)
SOF24 + LDV24 + RBV24		1.01 (0.88 to 1.15)	0.58 (–11.54 to 12.32)
GRZ12 + ELB12		1.01 (0.92 to 1.16)	1.00 (–8.25 to 13.76)
DCV12 + ASU12 + BEC12 + RBV12		1.02 (0.93 to 1.18)	1.77 (–6.40 to 14.87)
DCV12 + ASU12 + BEC12		0.41 (0.00 to 1.08)	–55.80 (–97.63 to 7.10)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.)		1.00 (0.83 to 1.15)	–0.46 (–16.71 to 12.87)
GRZ18 + ELB18 (50 mg q.d.)		0.97 (0.76 to 1.13)	–2.77 (–23.35 to 10.68)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.94 (0.67 to 1.10)	–5.64 (–31.23 to 8.24)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.00 (0.83 to 1.15)	0.06 (–16.49 to 12.72)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.88 to 1.15)	0.46 (–11.74 to 12.85)
GRZ12 + ELB12		1.01 (0.91 to 1.18)	0.82 (–8.41 to 15.25)
DCV12 + ASU12 + BEC12 + RBV12		1.02 (0.93 to 1.19)	1.54 (–6.43 to 15.67)
DCV12 + ASU12 + BEC12		0.41 (0.00 to 1.08)	–55.65 (–97.95 to 7.42)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.83 to 1.15)	–0.49 (–16.12 to 12.63)
GRZ18 + ELB18 (50 mg q.d.)		0.97 (0.76 to 1.12)	–2.81 (–23.52 to 10.49)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.94 (0.68 to 1.10)	–5.83 (–31.37 to 8.41)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.00 (0.83 to 1.17)	0.05 (–16.51 to 13.84)
GRZ12 + ELB12	SOF24 + LDV24 + RBV24	1.01 (0.91 to 1.17)	0.46 (–8.72 to 14.00)
DCV12 + ASU12 + BEC12 + RBV12		1.01 (0.93 to 1.18)	1.06 (–6.38 to 14.83)
DCV12 + ASU12 + BEC12		0.41 (0.00 to 1.07)	–56.34 (–98.13 to 6.58)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.82 to 1.15)	–0.86 (–17.10 to 12.52)
GRZ18 + ELB18 (50 mg q.d.)		0.97 (0.75 to 1.13)	–3.32 (–23.73 to 10.65)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.93 (0.67 to 1.09)	–6.35 (–31.45 to 7.72)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.83 to 1.15)	–0.52 (–16.09 to 12.34)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12	1.01 (0.93 to 1.11)	0.63 (–6.93 to 9.62)
DCV12 + ASU12 + BEC12		0.40 (0.00 to 1.04)	–57.46 (–98.14 to 4.10)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.81 to 1.09)	–1.41 (–18.43 to 7.77)
GRZ18 + ELB18 (50 mg q.d.)		0.96 (0.75 to 1.06)	–4.02 (–24.42 to 5.60)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.93 (0.67 to 1.04)	–7.19 (–32.21 to 3.58)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.82 to 1.09)	–1.04 (–17.60 to 8.13)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.40 (0.00 to 1.03)	–58.40 (–98.67 to 2.92)
GRZ12 + ELB12 (50 mg q.d.)		0.98 (0.81 to 1.06)	–2.13 (–19.13 to 5.89)
GRZ18 + ELB18 (50 mg q.d.)		0.95 (0.74 to 1.05)	–4.86 (–25.43 to 4.64)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.92 (0.66 to 1.03)	–8.05 (–33.44 to 2.90)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.98 (0.81 to 1.07)	–1.60 (–18.52 to 6.38)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	2.42 (0.90 to 684.60)	54.73 (–9.54 to 97.61)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.)		2.33 (0.86 to 664.60)	51.32 (–13.34 to 96.12)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.24 (0.80 to 646.60)	47.69 (–19.24 to 94.02)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.43 (0.91 to 688.40)	55.04 (–8.30 to 97.82)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	0.98 (0.78 to 1.14)	–2.33 (–20.66 to 11.62)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.94 (0.70 to 1.11)	–5.35 (–27.59 to 8.89)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.00 (0.85 to 1.19)	0.43 (–13.90 to 15.19)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ18 + ELB18 (50 mg q.d.)	0.97 (0.74 to 1.17)	–2.96 (–23.98 to 13.38)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.03 (0.88 to 1.28)	2.75 (–11.32 to 20.94)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	1.06 (0.91 to 1.43)	5.82 (–8.19 to 28.08)
Random effect model	Residual deviance	35.41 vs. 39 data points	
	Deviance information criteria	182.546	
Fixed effect model	Residual deviance	35.19 vs. 39 data points	
	Deviance information criteria	181.858	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 161: GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-NAIVE — EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	1.97 (1.79 to 2.19)	47.85 (42.52 to 53.23)
SOF8 + LDV8 + RBV8		1.92 (1.68 to 2.16)	46.01 (35.09 to 52.26)
SOF12 + LDV12 + RBV12		1.96 (1.77 to 2.18)	47.46 (41.38 to 53.05)
SOF24 + LDV24 + RBV24		1.97 (1.78 to 2.19)	48.08 (41.56 to 53.53)
T12 PR24-48 RGT q8		1.55 (1.31 to 1.74)	27.32 (15.48 to 35.13)
T12 PR24-48 RGT q12		1.53 (1.23 to 1.74)	26.31 (11.34 to 35.24)
T12 PR48 q8		1.58 (0.91 to 2.01)	28.75 (–4.55 to 46.26)
SOF12 PR24-48 RGT		1.71 (1.28 to 2.02)	35.52 (14.17 to 47.59)
SIM12 PR24-48 RGT		1.58 (1.41 to 1.77)	28.92 (21.18 to 35.74)
B44 PR48		1.77 (1.40 to 2.04)	38.17 (20.43 to 47.73)
SOF24 + RBV24		1.63 (1.29 to 1.87)	31.46 (14.33 to 41.11)
PAR/RIT12 + OMB12 + DAS12		1.92 (1.36 to 2.17)	46.37 (17.81 to 53.13)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.93 (1.75 to 2.14)	46.18 (40.22 to 51.34)
DCV24 + ASU24		1.81 (1.64 to 2.00)	40.25 (33.66 to 45.76)
DCV12 + SOF12		1.87 (1.22 to 2.17)	43.41 (10.76 to 52.86)
SOF12 + PR12		1.76 (1.30 to 2.05)	38.07 (14.80 to 48.71)
B24 PR28-48 RGT		1.53 (1.27 to 1.76)	26.51 (13.60 to 35.96)
SIM12 + SOF12		1.81 (0.76 to 2.15)	40.48 (–12.23 to 52.67)
SOF12 + SIM12 + RBV12		1.78 (0.88 to 2.14)	38.90 (–6.24 to 52.06)
GRZ12 + ELB12		1.91 (1.74 to 2.12)	45.23 (39.12 to 50.49)
GRZ12 + ELB12 + RBV12		1.12 (0.16 to 1.95)	5.68 (–41.98 to 44.92)
DCV12 + ASU12 + BEC12		1.81 (1.61 to 2.02)	40.35 (31.61 to 46.76)
GRZ12 + ELB12 (50 mg q.d.)		1.71 (1.06 to 2.08)	35.47 (3.05 to 49.67)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.57 (0.05 to 1.68)	–21.20 (–47.92 to 33.02)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.01 (0.00 to 2.10)	0.22 (–50.85 to 51.67)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.89 to 1.01)	–1.59 (–10.35 to 0.64)
SOF12 + LDV12 + RBV12		1.00 (0.95 to 1.03)	–0.35 (–4.71 to 3.04)
SOF24 + LDV24 + RBV24		1.00 (0.95 to 1.05)	0.25 (–5.26 to 4.32)
T12 PR24-48 RGT q8		0.79 (0.67 to 0.87)	–20.56 (–32.53 to –12.38)
T12 PR24-48 RGT q12		0.78 (0.63 to 0.87)	–21.53 (–36.29 to –12.78)
T12 PR48 q8		0.80 (0.48 to 0.97)	–19.06 (–51.02 to –3.10)
SOF12 PR24-48 RGT		0.87 (0.66 to 0.99)	–12.24 (–33.61 to –1.13)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.88)	–18.88 (–27.09 to –11.80)
B44 PR48		0.90 (0.72 to 0.99)	–9.60 (–27.28 to –0.97)
SOF24 + RBV24		0.83 (0.66 to 0.93)	–16.28 (–33.29 to –7.16)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.69 to 1.04)	–1.04 (–29.64 to 3.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.93 to 1.02)	–1.64 (–6.64 to 2.22)
DCV24 + ASU24		0.92 (0.86 to 0.98)	–7.55 (–14.14 to –2.21)
DCV12 + SOF12		0.96 (0.63 to 1.04)	–4.14 (–36.30 to 3.39)
SOF12 + PR12		0.90 (0.67 to 0.98)	–9.57 (–31.10 to –1.96)
B24 PR28-48 RGT		0.78 (0.64 to 0.88)	–21.32 (–34.73 to –11.38)
SIM12 + SOF12		0.93 (0.39 to 1.04)	–7.31 (–59.44 to 3.39)
SOF12 + SIM12 + RBV12		0.91 (0.45 to 1.03)	–8.94 (–53.46 to 2.95)
GRZ12 + ELB12		0.97 (0.92 to 1.02)	–2.59 (–8.16 to 1.88)
GRZ12 + ELB12 + RBV12		0.57 (0.08 to 0.96)	–42.09 (–89.34 to –3.71)
DCV12 + ASU12 + BEC12		0.92 (0.83 to 0.99)	–7.41 (–16.23 to –1.39)
GRZ12 + ELB12 (50 mg q.d.)		0.87 (0.55 to 1.00)	–12.34 (–43.84 to 0.19)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.29 (0.03 to 0.84)	–69.11 (–94.93 to –15.26)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.51 (0.00 to 1.03)	–47.62 (–97.84 to 2.86)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.01 (0.96 to 1.14)	1.28 (–3.67 to 11.60)
SOF24 + LDV24 + RBV24		1.02 (0.96 to 1.15)	1.82 (–4.13 to 12.72)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR24-48 RGT q8		0.81 (0.68 to 0.93)	–18.54 (–30.84 to –6.61)
T12 PR24-48 RGT q12		0.80 (0.64 to 0.92)	–19.51 (–34.47 to –7.32)
T12 PR48 q8		0.82 (0.49 to 1.03)	–16.87 (–49.24 to 2.45)
SOF12 PR24-48 RGT		0.89 (0.67 to 1.05)	–10.26 (–31.77 to 4.45)
SIM12 PR24-48 RGT		0.82 (0.73 to 0.94)	–16.94 (–25.82 to –5.29)
B44 PR48		0.92 (0.73 to 1.07)	–7.65 (–25.75 to 5.77)
SOF24 + RBV24		0.85 (0.67 to 0.98)	–14.25 (–31.25 to –1.95)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.71 to 1.13)	0.50 (–27.01 to 10.96)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.94 to 1.12)	0.00 (–5.58 to 10.44)
DCV24 + ASU24		0.94 (0.87 to 1.06)	–5.77 (–12.95 to 5.37)
DCV12 + SOF12		0.98 (0.65 to 1.12)	–2.24 (–33.84 to 10.40)
SOF12 + PR12		0.92 (0.71 to 1.01)	–7.31 (–27.16 to 0.84)
B24 PR28-48 RGT		0.80 (0.66 to 0.94)	–19.30 (–33.11 to –5.72)
SIM12 + SOF12		0.95 (0.40 to 1.11)	–5.15 (–56.60 to 9.27)
SOF12 + SIM12 + RBV12		0.93 (0.46 to 1.10)	–6.80 (–51.74 to 8.92)
GRZ12 + ELB12		0.99 (0.93 to 1.12)	–0.92 (–7.16 to 10.01)
GRZ12 + ELB12 + RBV12		0.58 (0.08 to 0.99)	–39.84 (–87.15 to –0.59)
DCV12 + ASU12 + BEC12		0.94 (0.85 to 1.06)	–5.56 (–14.91 to 5.50)
GRZ12 + ELB12 (50 mg q.d.)		0.89 (0.56 to 1.07)	–10.31 (–42.17 to 6.31)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.30 (0.03 to 0.88)	–66.33 (–93.58 to –11.59)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.52 (0.00 to 1.08)	–45.24 (–96.96 to 7.18)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.95 to 1.06)	0.62 (–4.88 to 5.62)
T12 PR24-48 RGT q8		0.79 (0.67 to 0.88)	–20.17 (–31.87 to –11.62)
T12 PR24-48 RGT q12		0.78 (0.63 to 0.87)	–21.20 (–35.47 to –12.17)
T12 PR48 q8		0.81 (0.48 to 0.98)	–18.63 (–50.55 to –2.21)
SOF12 PR24-48 RGT		0.88 (0.66 to 1.00)	–11.91 (–32.85 to –0.22)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.88)	–18.42 (–26.88 to –10.97)
B44 PR48		0.90 (0.72 to 1.00)	–9.26 (–26.71 to 0.18)
SOF24 + RBV24		0.84 (0.66 to 0.93)	–15.90 (–32.59 to –6.53)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.69 to 1.06)	–0.62 (–29.59 to 5.25)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.94 to 1.04)	–1.33 (–6.10 to 3.57)
DCV24 + ASU24		0.93 (0.86 to 0.99)	–7.18 (–13.89 to –0.97)
DCV12 + SOF12		0.96 (0.63 to 1.05)	–3.88 (–35.80 to 4.93)
SOF12 + PR12		0.91 (0.67 to 1.00)	–9.06 (–31.89 to 0.21)
B24 PR28-48 RGT		0.78 (0.65 to 0.89)	–20.94 (–34.33 to –10.40)
SIM12 + SOF12		0.93 (0.39 to 1.05)	–6.83 (–58.92 to 4.23)
SOF12 + SIM12 + RBV12		0.91 (0.46 to 1.04)	–8.66 (–52.51 to 3.75)
GRZ12 + ELB12		0.98 (0.92 to 1.04)	–2.24 (–7.83 to 3.31)
GRZ12 + ELB12 + RBV12		0.57 (0.08 to 0.96)	–41.65 (–89.22 to –3.48)
DCV12 + ASU12 + BEC12		0.93 (0.84 to 1.00)	–7.07 (–15.87 to –0.12)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.)		0.88 (0.55 to 1.01)	–11.76 (–43.81 to 0.76)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.29 (0.03 to 0.85)	–68.63 (–94.42 to –14.89)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.51 (0.00 to 1.04)	–47.26 (–97.61 to 3.76)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.79 (0.66 to 0.88)	–20.73 (–32.99 to –11.58)
T12 PR24-48 RGT q12		0.78 (0.62 to 0.88)	–21.74 (–37.03 to –11.88)
T12 PR48 q8		0.80 (0.48 to 0.97)	–19.28 (–51.17 to –2.86)
SOF12 PR24-48 RGT		0.87 (0.65 to 0.99)	–12.43 (–33.76 to –0.87)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.88)	–19.02 (–27.62 to –11.14)
B44 PR48		0.90 (0.72 to 1.00)	–9.78 (–27.56 to –0.35)
SOF24 + RBV24		0.83 (0.65 to 0.94)	–16.48 (–33.93 to –6.14)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.70 to 1.03)	–1.18 (–29.25 to 2.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.93 to 1.04)	–1.95 (–7.09 to 3.90)
DCV24 + ASU24		0.92 (0.85 to 0.99)	–7.73 (–14.50 to –1.40)
DCV12 + SOF12		0.95 (0.63 to 1.05)	–4.45 (–35.79 to 4.36)
SOF12 + PR12		0.90 (0.66 to 1.00)	–9.56 (–33.28 to 0.25)
B24 PR28-48 RGT		0.78 (0.64 to 0.88)	–21.46 (–34.91 to –11.01)
SIM12 + SOF12		0.92 (0.39 to 1.04)	–7.41 (–59.94 to 4.10)
SOF12 + SIM12 + RBV12		0.91 (0.45 to 1.03)	–8.93 (–53.38 to 2.94)
GRZ12 + ELB12		0.97 (0.91 to 1.03)	–2.85 (–8.41 to 3.12)
GRZ12 + ELB12 + RBV12		0.57 (0.08 to 0.96)	–42.34 (–89.26 to –4.02)
DCV12 + ASU12 + BEC12		0.92 (0.83 to 1.00)	–7.62 (–16.57 to –0.44)
GRZ12 + ELB12 (50 mg q.d.)		0.87 (0.55 to 1.00)	–12.43 (–43.70 to 0.41)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.29 (0.03 to 0.84)	–69.19 (–94.93 to –16.04)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.51 (0.00 to 1.03)	–47.50 (–98.30 to 3.24)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.99 (0.84 to 1.11)	–0.96 (–12.42 to 7.89)
T12 PR48 q8		1.02 (0.59 to 1.33)	1.49 (–32.33 to 22.15)
SOF12 PR24-48 RGT		1.11 (0.82 to 1.37)	8.20 (–13.92 to 24.57)
SIM12 PR24-48 RGT		1.02 (0.90 to 1.22)	1.70 (–8.22 to 14.54)
B44 PR48		1.14 (0.90 to 1.38)	10.76 (–7.81 to 25.49)
SOF24 + RBV24		1.05 (0.86 to 1.22)	4.14 (–10.42 to 15.10)
PAR/RIT12 + OMB12 + DAS12		1.24 (0.87 to 1.48)	18.74 (–10.35 to 31.40)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.14 to 1.45)	18.87 (11.28 to 29.56)
DCV24 + ASU24		1.17 (1.04 to 1.39)	12.94 (3.38 to 25.32)
DCV12 + SOF12		1.20 (0.79 to 1.46)	15.80 (–16.26 to 30.64)
SOF12 + PR12		1.14 (0.84 to 1.37)	10.82 (–12.42 to 24.88)
B24 PR28-48 RGT		0.99 (0.81 to 1.21)	–0.80 (–15.11 to 14.55)
SIM12 + SOF12		1.17 (0.49 to 1.44)	13.09 (–39.71 to 29.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.15 (0.56 to 1.43)	11.77 (–34.60 to 28.89)
GRZ12 + ELB12		1.23 (1.11 to 1.47)	17.89 (8.84 to 30.27)
GRZ12 + ELB12 + RBV12		0.72 (0.10 to 1.27)	–21.06 (–69.66 to 19.28)
DCV12 + ASU12 + BEC12		1.17 (1.03 to 1.40)	13.03 (2.04 to 25.83)
GRZ12 + ELB12 (50 mg q.d.)		1.11 (0.69 to 1.39)	8.14 (–24.03 to 26.14)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.37 (0.03 to 1.10)	–47.79 (–76.48 to 6.90)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.65 (0.00 to 1.40)	–26.66 (–79.87 to 27.74)
T12 PR48 q8	T12 PR24-48 RGT q12	1.04 (0.59 to 1.39)	2.72 (–32.56 to 25.05)
SOF12 PR24-48 RGT		1.12 (0.83 to 1.44)	9.18 (–13.20 to 27.72)
SIM12 PR24-48 RGT		1.04 (0.91 to 1.29)	2.64 (–7.36 to 17.75)
B44 PR48		1.15 (0.91 to 1.48)	11.67 (–7.17 to 29.65)
SOF24 + RBV24		1.07 (0.94 to 1.21)	5.07 (–4.35 to 13.89)
PAR/RIT12 + OMB12 + DAS12		1.26 (0.88 to 1.57)	19.54 (–9.09 to 35.35)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.26 (1.15 to 1.53)	19.95 (12.49 to 32.24)
DCV24 + ASU24		1.18 (1.04 to 1.48)	13.94 (3.52 to 29.41)
DCV12 + SOF12		1.22 (0.79 to 1.55)	16.88 (–16.20 to 34.33)
SOF12 + PR12		1.15 (0.86 to 1.44)	11.79 (–10.53 to 27.94)
B24 PR28-48 RGT		1.00 (0.82 to 1.29)	0.14 (–14.30 to 17.99)
SIM12 + SOF12		1.18 (0.50 to 1.52)	13.99 (–38.90 to 32.60)
SOF12 + SIM12 + RBV12		1.17 (0.57 to 1.51)	12.78 (–33.72 to 32.25)
GRZ12 + ELB12		1.25 (1.11 to 1.56)	18.89 (9.05 to 34.19)
GRZ12 + ELB12 + RBV12		0.74 (0.10 to 1.32)	–19.66 (–68.58 to 21.59)
DCV12 + ASU12 + BEC12		1.18 (1.03 to 1.49)	13.95 (2.16 to 29.92)
GRZ12 + ELB12 (50 mg q.d.)		1.12 (0.70 to 1.48)	9.18 (–23.42 to 29.85)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.38 (0.03 to 1.12)	–46.45 (–76.39 to 8.82)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.66 (0.00 to 1.46)	–25.53 (–79.69 to 30.45)
SOF12 PR24-48 RGT	T12 PR48 q8	1.08 (0.76 to 1.86)	6.63 (–21.22 to 41.62)
SIM12 PR24-48 RGT		1.00 (0.80 to 1.71)	0.16 (–18.28 to 33.22)
B44 PR48		1.12 (0.83 to 1.89)	9.07 (–14.78 to 42.38)
SOF24 + RBV24		1.03 (0.76 to 1.79)	2.43 (–21.52 to 37.23)
PAR/RIT12 + OMB12 + DAS12		1.22 (0.81 to 2.03)	16.94 (–15.91 to 48.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.02 to 2.06)	17.38 (1.45 to 49.51)
DCV24 + ASU24		1.15 (0.94 to 1.94)	11.53 (–5.68 to 44.04)
DCV12 + SOF12		1.16 (0.88 to 1.80)	12.98 (–9.86 to 39.95)
SOF12 + PR12		1.11 (0.78 to 1.89)	8.87 (–19.49 to 42.40)
B24 PR28-48 RGT		0.97 (0.74 to 1.67)	–2.19 (–23.53 to 31.61)
SIM12 + SOF12		1.13 (0.46 to 1.99)	10.56 (–44.88 to 47.70)
SOF12 + SIM12 + RBV12		1.11 (0.54 to 1.91)	8.72 (–38.48 to 45.29)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12		1.21 (1.00 to 2.04)	16.45 (0.13 to 48.70)
GRZ12 + ELB12 + RBV12		0.72 (0.10 to 1.59)	–21.52 (–73.28 to 31.51)
DCV12 + ASU12 + BEC12		1.15 (0.93 to 1.93)	11.54 (–6.70 to 43.73)
GRZ12 + ELB12 (50 mg q.d.)		1.08 (0.66 to 1.90)	6.09 (–28.81 to 42.81)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.37 (0.03 to 1.23)	–46.99 (–82.63 to 13.88)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.65 (0.00 to 1.74)	–26.42 (–87.28 to 40.27)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.92 (0.78 to 1.24)	–6.45 (–20.33 to 15.49)
B44 PR48		1.03 (0.80 to 1.39)	2.44 (–18.24 to 25.58)
SOF24 + RBV24		0.96 (0.73 to 1.28)	–3.87 (–24.51 to 18.47)
PAR/RIT12 + OMB12 + DAS12		1.12 (0.79 to 1.50)	9.94 (–18.38 to 32.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.99 to 1.50)	10.59 (–0.99 to 31.82)
DCV24 + ASU24		1.06 (0.91 to 1.41)	4.74 (–8.03 to 26.22)
DCV12 + SOF12		1.08 (0.72 to 1.47)	7.02 (–24.94 to 30.70)
SOF12 + PR12		1.03 (0.74 to 1.39)	2.68 (–23.41 to 25.96)
B24 PR28-48 RGT		0.90 (0.71 to 1.21)	–8.83 (–26.35 to 13.96)
SIM12 + SOF12		1.05 (0.45 to 1.46)	4.24 (–46.79 to 30.11)
SOF12 + SIM12 + RBV12		1.03 (0.51 to 1.42)	2.83 (–43.60 to 28.06)
GRZ12 + ELB12		1.11 (0.98 to 1.48)	9.65 (–2.22 to 30.97)
GRZ12 + ELB12 + RBV12		0.66 (0.09 to 1.21)	–28.29 (–79.69 to 15.16)
DCV12 + ASU12 + BEC12		1.06 (0.90 to 1.41)	4.72 (–8.90 to 26.52)
GRZ12 + ELB12 (50 mg q.d.)		1.00 (0.62 to 1.38)	–0.06 (–33.42 to 25.60)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.34 (0.03 to 1.02)	–54.98 (–87.08 to 1.54)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.60 (0.00 to 1.35)	–33.74 (–90.84 to 24.76)
B44 PR48	SIM12 PR24-48 RGT	1.12 (0.88 to 1.29)	9.10 (–9.65 to 20.98)
SOF24 + RBV24		1.030.811.18	2.47–14.8813.33
PAR/RIT12 + OMB12 + DAS12		1.22 (0.85 to 1.37)	17.19 (–11.82 to 26.60)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.12 to 1.35)	17.15 (9.88 to 25.08)
DCV24 + ASU24		1.14 (1.03 to 1.28)	11.26 (2.69 to 20.05)
DCV12 + SOF12		1.18 (0.78 to 1.36)	14.14 (–17.32 to 25.70)
SOF12 + PR12		1.12 (0.82 to 1.29)	9.19 (–14.51 to 21.36)
B24 PR28-48 RGT		0.97 (0.79 to 1.13)	–2.43 (–16.75 to 9.40)
SIM12 + SOF12		1.14 (0.48 to 1.35)	11.36 (–40.50 to 25.47)
SOF12 + SIM12 + RBV12		1.13 (0.56 to 1.34)	9.88 (–35.51 to 24.55)
GRZ12 + ELB12		1.21 (1.10 to 1.35)	16.19 (8.39 to 24.66)
GRZ12 + ELB12 + RBV12		0.70 (0.10 to 1.22)	–23.08 (–70.96 to 16.51)
DCV12 + ASU12 + BEC12		1.14 (1.01 to 1.29)	11.29 (1.07 to 20.99)
GRZ12 + ELB12 (50 mg q.d.)		1.08 (0.68 to 1.30)	6.41 (–25.91 to 22.00)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.36 (0.03 to 1.06)	–49.87 (–77.43 to 4.76)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.64 (0.00 to 1.32)	–28.55 (–80.73 to 24.08)
SOF24 + RBV24	B44 PR48	0.92 (0.71 to 1.18)	–6.65 (–25.80 to 12.79)
PAR/RIT12 + OMB12 + DAS12		1.09 (0.76 to 1.37)	7.78 (–22.10 to 26.14)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.09 (0.98 to 1.36)	7.96 (–1.47 to 25.49)
DCV24 + ASU24		1.02 (0.91 to 1.28)	2.04 (–8.12 to 19.59)
DCV12 + SOF12		1.06 (0.70 to 1.34)	4.95 (–27.15 to 24.33)
SOF12 + PR12		1.00 (0.72 to 1.28)	0.09 (–25.84 to 20.26)
B24 PR28-48 RGT		0.87 (0.71 to 1.10)	–11.35 (–26.99 to 7.38)
SIM12 + SOF12		1.03 (0.43 to 1.32)	2.23 (–50.23 to 23.49)
SOF12 + SIM12 + RBV12		1.01 (0.49 to 1.30)	1.00 (–45.64 to 22.11)
GRZ12 + ELB12		1.08 (0.98 to 1.35)	6.96 (–2.26 to 24.66)
GRZ12 + ELB12 + RBV12		0.64 (0.09 to 1.13)	–31.41 (–81.46 to 10.27)
DCV12 + ASU12 + BEC12		1.02 (0.90 to 1.29)	2.12 (–9.56 to 20.33)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.60 to 1.26)	–2.46 (–35.60 to 19.18)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.33 (0.03 to 0.96)	–58.16 (–87.98 to –2.98)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.57 (0.00 to 1.25)	–37.00 (–91.57 to 19.62)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	1.18 (0.82 to 1.50)	14.33 (–14.54 to 32.13)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.18 (1.07 to 1.47)	14.70 (6.34 to 29.98)
DCV24 + ASU24		1.11 (0.98 to 1.41)	8.72 (–2.16 to 26.10)
DCV12 + SOF12		1.14 (0.75 to 1.47)	11.52 (–21.08 to 30.88)
SOF12 + PR12		1.08 (0.80 to 1.37)	6.62 (–16.51 to 24.52)
B24 PR28-48 RGT		0.94 (0.77 to 1.22)	–4.93 (–20.01 to 14.40)
SIM12 + SOF12		1.11 (0.47 to 1.44)	8.65 (–44.00 to 29.38)
SOF12 + SIM12 + RBV12		1.09 (0.54 to 1.43)	7.26 (–38.55 to 28.98)
GRZ12 + ELB12		1.17 (1.04 to 1.48)	13.69 (3.41 to 30.97)
GRZ12 + ELB12 + RBV12		0.69 (0.10 to 1.25)	–24.76 (–74.64 to 18.04)
DCV12 + ASU12 + BEC12		1.11 (0.96 to 1.41)	8.67 (–3.65 to 26.47)
GRZ12 + ELB12 (50 mg q.d.)		1.05 (0.66 to 1.39)	4.07 (–28.54 to 25.93)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.35 (0.03 to 1.06)	–51.38 (–81.84 to 4.28)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.62 (0.00 to 1.38)	–30.40 (–85.24 to 26.38)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.99 (0.93 to 1.43)	–0.57 (–6.58 to 28.90)
DCV24 + ASU24		0.94 (0.86 to 1.34)	–6.17 (–13.91 to 22.97)
DCV12 + SOF12		0.97 (0.65 to 1.40)	–2.68 (–33.27 to 27.08)
SOF12 + PR12		0.93 (0.69 to 1.26)	–7.13 (–29.88 to 18.21)
B24 PR28-48 RGT		0.80 (0.66 to 1.15)	–19.33 (–33.35 to 9.84)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12		0.95 (0.39 to 1.35)	–4.89 (–58.27 to 24.33)
SOF12 + SIM12 + RBV12		0.93 (0.47 to 1.32)	–6.37 (–51.71 to 22.14)
GRZ12 + ELB12		0.98 (0.92 to 1.42)	–1.47 (–7.70 to 27.70)
GRZ12 + ELB12 + RBV12		0.59 (0.09 to 1.08)	–38.74 (–87.02 to 6.42)
DCV12 + ASU12 + BEC12		0.94 (0.84 to 1.34)	–5.98 (–15.59 to 22.79)
GRZ12 + ELB12 (50 mg q.d.)		0.90 (0.56 to 1.31)	–9.71 (–42.61 to 21.09)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.30 (0.03 to 0.90)	–65.06 (–93.71 to –8.47)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.53 (0.00 to 1.19)	–43.25 (–97.94 to 14.89)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.94 (0.87 to 1.00)	–5.84 (–12.56 to 0.20)
DCV12 + SOF12		0.97 (0.64 to 1.06)	–2.46 (–34.89 to 5.79)
SOF12 + PR12		0.92 (0.67 to 1.02)	–7.78 (–31.04 to 1.82)
B24 PR28-48 RGT		0.80 (0.66 to 0.90)	–19.66 (–32.79 to –9.17)
SIM12 + SOF12		0.94 (0.39 to 1.06)	–5.51 (–58.38 to 5.56)
SOF12 + SIM12 + RBV12		0.93 (0.46 to 1.06)	–7.16 (–52.02 to 5.09)
GRZ12 + ELB12		0.99 (0.93 to 1.05)	–0.95 (–6.51 to 4.62)
GRZ12 + ELB12 + RBV12		0.58 (0.08 to 0.98)	–40.30 (–87.83 to –1.70)
DCV12 + ASU12 + BEC12		0.94 (0.85 to 1.01)	–5.75 (–14.46 to 1.10)
GRZ12 + ELB12 (50 mg q.d.)		0.89 (0.56 to 1.02)	–10.54 (–42.15 to 2.25)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.30 (0.03 to 0.86)	–67.28 (–93.66 to –13.63)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.52 (0.00 to 1.06)	–46.01 (–96.36 to 5.13)
DCV12 + SOF12	DCV24 + ASU24	1.04 (0.68 to 1.15)	3.20 (–28.24 to 13.02)
SOF12 + PR12		0.98 (0.71 to 1.11)	–1.93 (–26.34 to 9.12)
B24 PR28-48 RGT		0.85 (0.70 to 0.97)	–13.69 (–27.30 to –2.80)
SIM12 + SOF12		1.01 (0.42 to 1.15)	0.46 (–52.36 to 12.98)
SOF12 + SIM12 + RBV12		0.99 (0.49 to 1.14)	–1.21 (–46.37 to 11.99)
GRZ12 + ELB12		1.06 (0.98 to 1.14)	4.93 (–1.44 to 11.87)
GRZ12 + ELB12 + RBV12		0.62 (0.09 to 1.05)	–34.48 (–82.06 to 4.25)
DCV12 + ASU12 + BEC12		1.00 (0.90 to 1.09)	0.08 (–9.28 to 8.03)
GRZ12 + ELB12 (50 mg q.d.)		0.95 (0.60 to 1.11)	–4.74 (–36.62 to 9.34)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.31 (0.03 to 0.91)	–61.47 (–88.03 to –7.82)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.55 (0.00 to 1.14)	–40.12 (–91.06 to 11.86)
SOF12 + PR12	DCV12 + SOF12	0.95 (0.69 to 1.44)	–4.57 (–30.00 to 27.32)
B24 PR28-48 RGT		0.83 (0.66 to 1.26)	–16.32 (–32.47 to 15.93)
SIM12 + SOF12		0.97 (0.41 to 1.49)	–2.40 (–55.67 to 30.86)
SOF12 + SIM12 + RBV12		0.96 (0.47 to 1.42)	–3.51 (–49.61 to 27.48)
GRZ12 + ELB12		1.02 (0.93 to 1.55)	1.63 (–6.87 to 33.45)
GRZ12 + ELB12 + RBV12		0.61 (0.09 to 1.20)	–35.78 (–85.06 to 13.81)
DCV12 + ASU12 + BEC12		0.97 (0.85 to 1.47)	–3.00 (–14.57 to 28.59)
GRZ12 + ELB12 (50 mg q.d.)		0.92 (0.59 to 1.41)	–7.18 (–39.35 to 25.97)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.32 (0.03 to 0.96)	–60.97 (–92.59 to –2.93)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.55 (0.00 to 1.29)	–39.97 (–96.53 to 21.28)
B24 PR28-48 RGT	SOF12 + PR12	0.87 (0.70 to 1.20)	–11.51 (–27.44 to 13.31)
SIM12 + SOF12		1.02 (0.44 to 1.44)	1.70 (–48.39 to 28.93)
SOF12 + SIM12 + RBV12		1.01 (0.51 to 1.42)	0.41 (–44.27 to 28.03)
GRZ12 + ELB12		1.08 (0.96 to 1.48)	6.83 (–3.67 to 30.87)
GRZ12 + ELB12 + RBV12		0.64 (0.09 to 1.20)	–30.58 (–80.84 to 14.33)
DCV12 + ASU12 + BEC12		1.02 (0.89 to 1.40)	2.02 (–10.49 to 25.92)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.61 to 1.38)	–2.52 (–35.31 to 25.00)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.33 (0.03 to 1.00)	–56.92 (–88.16 to 0.17)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.58 (0.00 to 1.33)	–36.17 (–92.57 to 23.57)
SIM12 + SOF12	B24 PR28-48 RGT	1.18 (0.50 to 1.48)	13.57 (–38.71 to 31.38)
SOF12 + SIM12 + RBV12		1.16 (0.57 to 1.47)	11.96 (–33.68 to 30.82)
GRZ12 + ELB12		1.25 (1.10 to 1.51)	18.68 (8.27 to 32.26)
GRZ12 + ELB12 + RBV12		0.73 (0.10 to 1.28)	–20.29 (–69.06 to 20.01)
DCV12 + ASU12 + BEC12		1.18 (1.02 to 1.44)	13.75 (1.29 to 27.80)
GRZ12 + ELB12 (50 mg q.d.)		1.12 (0.69 to 1.43)	8.82 (–24.11 to 27.64)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.38 (0.03 to 1.10)	–46.95 (–76.50 to 7.14)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.66 (0.00 to 1.42)	–25.94 (–79.66 to 28.61)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.99 (0.52 to 2.05)	–1.04 (–44.22 to 44.37)
GRZ12 + ELB12		1.05 (0.93 to 2.50)	4.60 (–6.71 to 56.95)
GRZ12 + ELB12 + RBV12		0.65 (0.09 to 1.57)	–30.44 (–84.08 to 26.12)
DCV12 + ASU12 + BEC12		1.00 (0.86 to 2.39)	–0.27 (–14.16 to 52.36)
GRZ12 + ELB12 (50 mg q.d.)		0.95 (0.58 to 2.23)	–4.34 (–39.55 to 47.42)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.34 (0.03 to 1.14)	–55.86 (–92.11 to 8.20)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.59 (0.00 to 1.79)	–34.00 (–96.37 to 39.79)
GRZ12 + ELB12	SOF12 + SIM12 + RBV12	1.07 (0.94 to 2.15)	6.22 (–5.99 to 50.93)
GRZ12 + ELB12 + RBV12		0.66 (0.09 to 1.42)	–28.76 (–83.82 to 23.28)
DCV12 + ASU12 + BEC12		1.02 (0.86 to 2.05)	1.44 (–13.30 to 46.36)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.59 to 1.97)	–2.98 (–37.96 to 42.97)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.34 (0.03 to 1.08)	–54.02 (–91.68 to 4.86)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.59 (0.00 to 1.70)	–33.17 (–95.52 to 37.38)
GRZ12 + ELB12 + RBV12	GRZ12 + ELB12	0.58 (0.08 to 0.99)	–39.34 (–87.14 to –0.74)
DCV12 + ASU12 + BEC12		0.95 (0.86 to 1.02)	–4.84 (–13.84 to 2.19)
GRZ12 + ELB12 (50 mg q.d.)		0.90 (0.57 to 1.04)	–9.50 (–41.33 to 3.51)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.30 (0.03 to 0.86)	–66.26 (–92.61 to –12.80)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.53 (0.00 to 1.07)	–44.87 (–95.51 to 6.09)
DCV12 + ASU12 + BEC12	GRZ12 + ELB12 + RBV12	1.62 (0.95 to 11.48)	34.27 (–4.46 to 82.90)
GRZ12 + ELB12 (50 mg q.d.)		1.48 (0.95 to 10.11)	26.27 (–3.99 to 74.87)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.56 (0.17 to 1.11)	–20.54 (–48.89 to 3.61)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.93 (0.00 to 7.53)	–3.84 (–83.79 to 78.41)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	0.95 (0.60 to 1.12)	–4.66 (–36.57 to 10.26)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.32 (0.03 to 0.91)	–61.14 (–88.63 to –7.53)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.56 (0.00 to 1.15)	–39.89 (–91.71 to 12.52)
GRZ8 + ELB8 (50 mg q.d.) + RBV8	GRZ12 + ELB12 (50 mg q.d.)	0.35 (0.03 to 0.89)	–51.08 (–82.86 to –9.63)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.61 (0.00 to 1.52)	–32.45 (–92.02 to 32.26)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ8 + ELB8 (50 mg q.d.) + RBV8	1.45 (0.01 to 22.94)	15.27 (–65.79 to 89.87)
Random effect model	Residual deviance	66.91 vs. 70 data points	
	Deviance information criteria	400.176	
Fixed effect model	Residual deviance	69.48 vs. 70 data points	
	Deviance information criteria	400.172	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced

TABLE 162: GENOTYPE 1 TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	4.07 (3.59 to 4.56)	71.93 (63.79 to 76.01)
SOF24 + LDV24		4.00 (2.90 to 4.55)	70.73 (45.12 to 76.37)
SOF12 + LDV12 + RBV12		4.05 (3.62 to 4.52)	71.14 (65.91 to 74.72)
SOF24 + LDV24 + RBV24		4.10 (3.58 to 4.60)	72.59 (63.09 to 76.87)
T12 PR48 q8		3.09 (2.43 to 3.67)	48.88 (33.96 to 59.14)
SIM12 PR24-48 RGT		2.87 (2.08 to 3.53)	43.53 (25.27 to 57.26)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR48		3.04 (2.33 to 3.62)	47.75 (31.73 to 58.03)
B32 PR36-48 RGT		2.62 (1.70 to 3.44)	37.76 (16.71 to 55.04)
SOF12 + RBV12		0.67 (0.08 to 2.22)	–7.78 (–21.68 to 28.48)
PAR/RIT12 + OMB12 + DAS12		4.06 (2.66 to 4.62)	72.51 (39.13 to 77.36)
PAR/RIT12 + OMB12 + DAS12 + RBV12		4.11 (3.65 to 4.60)	72.73 (66.29 to 76.29)
DCV24 + ASU24		3.29 (2.61 to 3.84)	53.47 (38.78 to 62.75)
DCV24 + ASU24 + PR24		3.86 (3.26 to 4.40)	67.06 (54.63 to 73.25)
SIM12 PR24-48 RGT or SIM12 PR48		2.98 (1.74 to 3.85)	46.32 (17.41 to 64.39)
SOF12 + PR12		3.33 (2.32 to 3.97)	54.51 (31.41 to 66.26)
SIM12 + SOF12		3.84 (2.40 to 4.47)	67.01 (32.58 to 75.57)
SOF12 + SIM12 + RBV12		3.96 (2.01 to 4.56)	70.01 (23.74 to 76.92)
GRZ12 + ELB12 + RBV12		4.15 (3.68 to 4.64)	73.64 (67.05 to 77.11)
DCV12 + ASU12 + BEC12 + RBV12		3.95 (2.84 to 4.54)	69.61 (43.78 to 76.21)
DCV12 + ASU12 + BEC12		3.80 (3.11 to 4.35)	65.61 (50.80 to 72.58)
GRZ12 + ELB12 (50 mg q.d.)		3.81 (2.89 to 4.44)	66.00 (45.14 to 74.56)
GRZ18 + ELB18 (50 mg q.d.)		4.07 (3.40 to 4.62)	72.29 (57.54 to 77.21)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		3.93 (3.07 to 4.53)	68.96 (49.28 to 75.91)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		4.20 (3.69 to 4.71)	75.14 (66.15 to 78.30)
SOF24 + LDV24	SOF12 + LDV12	0.99 (0.72 to 1.08)	–1.17 (–26.22 to 7.57)
SOF12 + LDV12 + RBV12		0.99 (0.94 to 1.07)	–0.81 (–5.71 to 6.11)
SOF24 + LDV24 + RBV24		1.01 (0.91 to 1.10)	0.61 (–8.70 to 8.61)
T12 PR48 q8		0.76 (0.61 to 0.89)	–22.76 (–37.42 to –10.33)
SIM12 PR24-48 RGT		0.70 (0.51 to 0.87)	–28.14 (–46.04 to –12.23)
SIM12 PR48		0.75 (0.59 to 0.87)	–24.02 (–39.42 to –11.46)
B32 PR36-48 RGT		0.64 (0.42 to 0.84)	–33.91 (–54.71 to –14.94)
SOF12 + RBV12		0.16 (0.02 to 0.55)	–79.36 (–93.53 to –42.33)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.67 to 1.10)	0.41 (–31.37 to 8.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.94 to 1.10)	0.73 (–5.43 to 8.61)
DCV24 + ASU24		0.81 (0.66 to 0.92)	–18.18 (–32.24 to –7.32)
DCV24 + ASU24 + PR24		0.95 (0.83 to 1.05)	–4.88 (–16.72 to 4.40)
SIM12 PR24-48 RGT or SIM12 PR48		0.73 (0.43 to 0.93)	–25.37 (–53.46 to –6.32)
SOF12 + PR12		0.82 (0.58 to 0.96)	–17.20 (–39.91 to –3.94)
SIM12 + SOF12		0.95 (0.60 to 1.07)	–4.69 (–37.59 to 5.97)
SOF12 + SIM12 + RBV12		0.98 (0.50 to 1.09)	–2.01 (–46.82 to 8.10)
GRZ12 + ELB12 + RBV12		1.02 (0.95 to 1.11)	1.60 (–5.14 to 9.84)
DCV12 + ASU12 + BEC12 + RBV12		0.98 (0.71 to 1.08)	–2.28 (–27.87 to 7.50)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		0.94 (0.78 to 1.04)	–6.10 (–20.75 to 3.54)
GRZ12 + ELB12 (50 mg q.d.)		0.94 (0.72 to 1.06)	–5.79 (–26.35 to 4.97)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.85 to 1.10)	0.40 (–14.26 to 8.80)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.77 to 1.08)	–2.68 (–21.91 to 6.73)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.03 (0.94 to 1.12)	2.92 (–5.29 to 10.90)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.00 (0.94 to 1.36)	0.38 (–5.41 to 24.39)
SOF24 + LDV24 + RBV24		1.02 (0.91 to 1.39)	1.74 (–8.24 to 26.66)
T12 PR48 q8		0.78 (0.61 to 1.07)	–21.12 (–37.04 to 4.70)
SIM12 PR24-48 RGT		0.72 (0.52 to 1.01)	–26.23 (–45.00 to 0.86)
SIM12 PR48		0.76 (0.59 to 1.05)	–22.28 (–38.71 to 3.39)
B32 PR36-48 RGT		0.66 (0.43 to 0.95)	–31.49 (–53.41 to –4.03)
SOF12 + RBV12		0.17 (0.02 to 0.57)	–75.89 (–93.85 to –36.84)
PAR/RIT12 + OMB12 + DAS12		1.02 (0.69 to 1.36)	1.52 (–28.48 to 24.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.94 to 1.40)	1.86 (–5.57 to 27.29)
DCV24 + ASU24		0.83 (0.67 to 1.10)	–16.45 (–31.52 to 7.16)
DCV24 + ASU24 + PR24		0.96 (0.83 to 1.32)	–3.54 (–16.07 to 21.72)
SIM12 PR24-48 RGT or SIM12 PR48		0.75 (0.45 to 1.07)	–23.17 (–51.90 to 4.89)
SOF12 + PR12		0.84 (0.59 to 1.16)	–15.52 (–38.73 to 10.90)
SIM12 + SOF12		0.96 (0.62 to 1.31)	–3.52 (–36.05 to 22.24)
SOF12 + SIM12 + RBV12		0.99 (0.52 to 1.37)	–0.68 (–45.40 to 25.93)
GRZ12 + ELB12 + RBV12		1.03 (0.95 to 1.42)	2.72 (–4.88 to 28.40)
DCV12 + ASU12 + BEC12 + RBV12		0.99 (0.72 to 1.35)	–1.06 (–25.84 to 24.48)
DCV12 + ASU12 + BEC12		0.95 (0.79 to 1.30)	–4.85 (–19.85 to 20.79)
GRZ12 + ELB12 (50 mg q.d.)		0.96 (0.73 to 1.30)	–4.12 (–25.47 to 21.04)
GRZ18 + ELB18 (50 mg q.d.)		1.02 (0.86 to 1.38)	1.49 (–13.53 to 26.41)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.98 (0.79 to 1.34)	–1.52 (–19.84 to 23.66)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.04 (0.94 to 1.43)	4.04 (–6.08 to 29.32)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.02 (0.92 to 1.08)	1.51 (–7.85 to 6.96)
T12 PR48 q8		0.77 (0.61 to 0.88)	–22.18 (–36.55 to –11.22)
SIM12 PR24-48 RGT		0.71 (0.52 to 0.86)	–27.52 (–45.57 to –12.79)
SIM12 PR48		0.75 (0.59 to 0.86)	–23.38 (–38.33 to –12.58)
B32 PR36-48 RGT		0.65 (0.43 to 0.84)	–33.28 (–54.16 to –15.30)
SOF12 + RBV12		0.16 (0.02 to 0.54)	–78.73 (–93.11 to –42.99)
PAR/RIT12 + OMB12 + DAS12		1.02 (0.67 to 1.07)	1.45 (–30.78 to 6.73)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.02 (0.95 to 1.08)	1.58 (–4.70 to 6.94)
DCV24 + ASU24		0.81 (0.67 to 0.91)	–17.53 (–31.00 to –8.67)
DCV24 + ASU24 + PR24		0.96 (0.84 to 1.03)	–4.05 (–15.45 to 2.61)
SIM12 PR24-48 RGT or SIM12 PR48		0.74 (0.43 to 0.93)	–24.63 (–52.94 to –6.39)
SOF12 + PR12		0.82 (0.58 to 0.96)	–16.68 (–39.48 to –3.85)
SIM12 + SOF12		0.95 (0.60 to 1.06)	–4.30 (–37.80 to 5.22)
SOF12 + SIM12 + RBV12		0.99 (0.50 to 1.08)	–1.36 (–46.98 to 7.22)
GRZ12 + ELB12 + RBV12		1.03 (0.96 to 1.09)	2.41 (–3.96 to 7.69)
DCV12 + ASU12 + BEC12 + RBV12		0.98 (0.71 to 1.07)	–1.52 (–27.08 to 6.01)
DCV12 + ASU12 + BEC12		0.94 (0.79 to 1.03)	–5.49 (–19.84 to 2.77)
GRZ12 + ELB12 (50 mg q.d.)		0.95 (0.73 to 1.05)	–5.00 (–26.03 to 4.12)
GRZ18 + ELB18 (50 mg q.d.)		1.01 (0.86 to 1.08)	1.25 (–13.05 to 7.04)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.98 (0.78 to 1.06)	–2.17 (–21.09 to 5.61)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.04 (0.95 to 1.10)	3.93 (–5.16 to 8.71)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.76 (0.60 to 0.89)	–23.47 (–38.31 to –10.11)
SIM12 PR24-48 RGT		0.70 (0.51 to 0.87)	–28.77 (–46.82 to –12.07)
SIM12 PR48		0.74 (0.58 to 0.87)	–24.66 (–40.27 to –11.67)
B32 PR36-48 RGT		0.64 (0.42 to 0.84)	–34.42 (–55.39 to –14.80)
SOF12 + RBV12		0.16 (0.02 to 0.54)	–79.64 (–94.63 to –43.96)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.66 to 1.11)	–0.09 (–31.78 to 9.30)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.00 (0.93 to 1.11)	0.02 (–6.48 to 9.73)
DCV24 + ASU24		0.80 (0.65 to 0.93)	–18.81 (–33.33 to –6.45)
DCV24 + ASU24 + PR24		0.94 (0.82 to 1.05)	–5.43 (–17.50 to 4.75)
SIM12 PR24-48 RGT or SIM12 PR48		0.73 (0.43 to 0.93)	–25.74 (–54.07 to –6.36)
SOF12 + PR12		0.82 (0.58 to 0.96)	–17.67 (–40.71 to –3.49)
SIM12 + SOF12		0.95 (0.59 to 1.08)	–5.29 (–39.05 to 6.77)
SOF12 + SIM12 + RBV12		0.97 (0.50 to 1.10)	–2.59 (–47.78 to 8.96)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.12)	0.90 (–5.83 to 10.62)
DCV12 + ASU12 + BEC12 + RBV12		0.97 (0.70 to 1.09)	–2.84 (–28.53 to 8.31)
DCV12 + ASU12 + BEC12		0.93 (0.78 to 1.05)	–6.73 (–21.51 to 4.29)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.71 to 1.07)	–6.29 (–27.59 to 5.89)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.85 to 1.11)	–0.20 (–14.81 to 9.54)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.76 to 1.09)	–3.32 (–23.12 to 7.47)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.93 to 1.14)	2.34 (–6.57 to 12.05)
SIM12 PR24-48 RGT	T12 PR48 q8	0.93 (0.66 to 1.24)	–5.33 (–25.57 to 14.90)
SIM12 PR48		0.98 (0.82 to 1.16)	–1.18 (–13.28 to 9.99)
B32 PR36-48 RGT		0.85 (0.55 to 1.19)	–10.95 (–34.24 to 11.94)
SOF12 + RBV12		0.22 (0.03 to 0.72)	–55.60 (–73.18 to –19.55)
PAR/RIT12 + OMB12 + DAS12		1.31 (0.86 to 1.64)	22.63 (–10.02 to 37.75)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.33 (1.15 to 1.67)	23.64 (12.17 to 38.41)
DCV24 + ASU24		1.06 (0.84 to 1.36)	4.58 (–12.76 to 21.23)
DCV24 + ASU24 + PR24		1.25 (1.07 to 1.53)	17.81 (5.51 to 31.16)
SIM12 PR24-48 RGT or SIM12 PR48		0.97 (0.60 to 1.25)	–2.31 (–27.96 to 16.22)
SOF12 + PR12		1.08 (0.75 to 1.39)	5.55 (–18.80 to 23.96)
SIM12 + SOF12		1.24 (0.78 to 1.57)	17.33 (–16.33 to 34.46)
SOF12 + SIM12 + RBV12		1.27 (0.66 to 1.62)	19.88 (–24.27 to 36.95)
GRZ12 + ELB12 + RBV12		1.34 (1.16 to 1.68)	24.55 (12.97 to 39.48)
DCV12 + ASU12 + BEC12 + RBV12		1.28 (0.92 to 1.60)	20.09 (–5.66 to 35.90)
DCV12 + ASU12 + BEC12		1.23 (0.99 to 1.55)	16.36 (–0.75 to 32.19)
GRZ12 + ELB12 (50 mg q.d.)		1.23 (0.93 to 1.56)	16.82 (–5.50 to 33.02)
GRZ18 + ELB18 (50 mg q.d.)		1.32 (1.08 to 1.65)	22.93 (6.61 to 38.03)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.27 (0.99 to 1.60)	19.63 (–1.01 to 35.63)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.36 (1.17 to 1.71)	25.79 (13.34 to 40.77)
SIM12 PR48	SIM12 PR24-48 RGT	1.06 (0.78 to 1.48)	4.08 (–16.98 to 24.40)
B32 PR36-48 RGT		0.92 (0.58 to 1.36)	–5.69 (–30.47 to 19.04)
SOF12 + RBV12		0.23 (0.03 to 0.82)	–50.14 (–71.65 to –11.13)
PAR/RIT12 + OMB12 + DAS12		1.41 (0.92 to 1.94)	27.70 (–5.48 to 46.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.43 (1.18 to 1.97)	28.99 (13.97 to 47.27)
DCV24 + ASU24		1.15 (0.86 to 1.58)	9.85 (–10.45 to 29.28)
DCV24 + ASU24 + PR24		1.35 (1.07 to 1.85)	23.20 (5.17 to 41.89)
SIM12 PR24-48 RGT or SIM12 PR48		1.04 (0.60 to 1.52)	2.74 (–28.57 to 27.46)
SOF12 + PR12		1.16 (0.79 to 1.60)	10.83 (–15.78 to 31.14)
SIM12 + SOF12		1.33 (0.82 to 1.81)	22.66 (–12.21 to 41.78)
SOF12 + SIM12 + RBV12		1.37 (0.71 to 1.86)	25.07 (–20.38 to 43.93)
GRZ12 + ELB12 + RBV12		1.45 (1.19 to 1.99)	29.82 (14.95 to 47.89)
DCV12 + ASU12 + BEC12 + RBV12		1.37 (0.98 to 1.88)	25.08 (–1.66 to 44.00)
DCV12 + ASU12 + BEC12		1.33 (1.03 to 1.80)	21.81 (1.89 to 40.35)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.)		1.33 (0.97 to 1.82)	22.06 (–2.46 to 41.40)
GRZ18 + ELB18 (50 mg q.d.)		1.42 (1.12 to 1.94)	28.14 (8.98 to 46.46)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.37 (1.02 to 1.88)	24.86 (1.84 to 43.79)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.46 (1.19 to 2.01)	31.08 (15.03 to 49.16)
B32 PR36-48 RGT	SIM12 PR48	0.86 (0.56 to 1.24)	–9.72 (–32.99 to 14.26)
SOF12 + RBV12		0.22 (0.03 to 0.71)	–54.26 (–71.17 to –20.03)
PAR/RIT12 + OMB12 + DAS12		1.33 (0.88 to 1.71)	23.82 (–8.98 to 39.90)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.35 (1.17 to 1.73)	24.89 (13.17 to 40.49)
DCV24 + ASU24		1.08 (0.85 to 1.40)	5.83 (–11.47 to 23.01)
DCV24 + ASU24 + PR24		1.27 (1.12 to 1.54)	19.05 (8.91 to 31.18)
SIM12 PR24-48 RGT or SIM12 PR48		0.98 (0.64 to 1.22)	–1.12 (–24.06 to 14.89)
SOF12 + PR12		1.10 (0.76 to 1.46)	6.79 (–17.38 to 26.51)
SIM12 + SOF12		1.26 (0.79 to 1.64)	18.46 (–15.05 to 36.86)
SOF12 + SIM12 + RBV12		1.29 (0.68 to 1.69)	20.94 (–22.56 to 39.04)
GRZ12 + ELB12 + RBV12		1.36 (1.18 to 1.75)	25.73 (14.14 to 41.44)
DCV12 + ASU12 + BEC12 + RBV12		1.30 (0.94 to 1.66)	21.28 (–4.29 to 37.77)
DCV12 + ASU12 + BEC12		1.25 (1.01 to 1.61)	17.55 (0.36 to 34.43)
GRZ12 + ELB12 (50 mg q.d.)		1.25 (0.94 to 1.61)	17.98 (–4.26 to 34.90)
GRZ18 + ELB18 (50 mg q.d.)		1.34 (1.10 to 1.72)	24.03 (7.69 to 40.29)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.29 (1.01 to 1.67)	20.82 (0.35 to 37.95)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.38 (1.18 to 1.78)	26.96 (14.53 to 43.04)
SOF12 + RBV12	B32 PR36-48 RGT	0.26 (0.03 to 0.92)	–44.12 (–69.03 to –4.34)
PAR/RIT12 + OMB12 + DAS12		1.53 (0.99 to 2.34)	33.00 (–0.88 to 55.23)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.57 (1.21 to 2.38)	34.74 (16.42 to 55.67)
DCV24 + ASU24		1.25 (0.91 to 1.93)	15.32 (–6.58 to 38.36)
DCV24 + ASU24 + PR24		1.47 (1.10 to 2.24)	28.98 (7.48 to 50.46)
SIM12 PR24-48 RGT or SIM12 PR48		1.13 (0.64 to 1.82)	8.21 (–24.63 to 35.79)
SOF12 + PR12		1.26 (0.83 to 1.95)	16.17 (–12.04 to 40.25)
SIM12 + SOF12		1.45 (0.88 to 2.21)	27.97 (–8.23 to 50.92)
SOF12 + SIM12 + RBV12		1.48 (0.76 to 2.26)	30.07 (–15.29 to 53.19)
GRZ12 + ELB12 + RBV12		1.58 (1.23 to 2.41)	35.54 (17.70 to 56.67)
DCV12 + ASU12 + BEC12 + RBV12		1.49 (1.03 to 2.26)	30.49 (2.31 to 52.37)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		1.45 (1.06 to 2.18)	27.35 (4.79 to 48.80)
GRZ12 + ELB12 (50 mg q.d.)		1.45 (1.01 to 2.20)	27.44 (1.03 to 49.81)
GRZ18 + ELB18 (50 mg q.d.)		1.55 (1.16 to 2.36)	33.82 (12.20 to 54.68)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.49 (1.08 to 2.28)	30.24 (6.10 to 52.24)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.60 (1.23 to 2.44)	36.80 (17.58 to 57.82)
PAR/RIT12 + OMB12 + DAS12	SOF12 + RBV12	5.99 (1.73 to 46.45)	77.38 (33.04 to 95.03)
PAR/RIT12 + OMB12 + DAS12 + RBV12		6.19 (1.85 to 49.02)	80.17 (43.50 to 94.36)
DCV24 + ASU24		4.93 (1.45 to 39.45)	60.21 (22.51 to 79.02)
DCV24 + ASU24 + PR24		5.79 (1.76 to 45.37)	73.84 (38.35 to 89.38)
SIM12 PR24-48 RGT or SIM12 PR48		4.40 (1.27 to 33.81)	51.87 (12.09 to 76.53)
SOF12 + PR12		4.96 (1.43 to 38.54)	60.71 (20.35 to 81.30)
SIM12 + SOF12		5.60 (1.59 to 43.03)	72.28 (24.97 to 91.59)
SOF12 + SIM12 + RBV12		5.69 (1.58 to 42.94)	74.22 (22.93 to 94.15)
GRZ12 + ELB12 + RBV12		6.24 (1.88 to 49.55)	81.07 (45.07 to 95.32)
DCV12 + ASU12 + BEC12 + RBV12		5.80 (1.71 to 47.29)	75.01 (35.17 to 93.60)
DCV12 + ASU12 + BEC12		5.68 (1.67 to 45.22)	72.22 (33.70 to 89.29)
GRZ12 + ELB12 (50 mg q.d.)		5.67 (1.65 to 44.92)	72.06 (31.73 to 90.96)
GRZ18 + ELB18 (50 mg q.d.)		6.11 (1.80 to 49.32)	78.78 (40.91 to 95.63)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		5.84 (1.74 to 46.71)	74.91 (36.68 to 92.73)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		6.33 (1.88 to 49.89)	82.51 (44.67 to 96.70)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.00 (0.93 to 1.53)	0.13 (–6.86 to 33.38)
DCV24 + ASU24		0.81 (0.66 to 1.22)	–18.03 (–32.90 to 13.76)
DCV24 + ASU24 + PR24		0.95 (0.82 to 1.43)	–4.96 (–17.71 to 27.06)
SIM12 PR24-48 RGT or SIM12 PR48		0.74 (0.44 to 1.15)	–24.56 (–53.20 to 9.71)
SOF12 + PR12		0.82 (0.58 to 1.23)	–16.91 (–39.52 to 14.80)
SIM12 + SOF12		0.95 (0.61 to 1.40)	–4.53 (–37.31 to 26.18)
SOF12 + SIM12 + RBV12		0.98 (0.51 to 1.44)	–2.14 (–46.49 to 28.41)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.54)	0.99 (–5.97 to 33.89)
DCV12 + ASU12 + BEC12 + RBV12		0.97 (0.71 to 1.44)	–2.45 (–27.43 to 28.03)
DCV12 + ASU12 + BEC12		0.94 (0.78 to 1.40)	–6.23 (–20.92 to 25.20)
GRZ12 + ELB12 (50 mg q.d.)		0.94 (0.72 to 1.39)	–5.58 (–26.96 to 25.32)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.85 to 1.50)	–0.29 (–14.69 to 31.09)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.97 (0.77 to 1.45)	–2.81 (–21.74 to 28.27)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.93 to 1.55)	2.29 (–6.47 to 34.18)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.80 (0.65 to 0.91)	–19.03 (–33.64 to –8.57)
DCV24 + ASU24 + PR24		0.94 (0.82 to 1.03)	–5.61 (–17.75 to 2.46)
SIM12 PR24-48 RGT or SIM12 PR48		0.73 (0.43 to 0.92)	–26.16 (–54.77 to –7.53)
SOF12 + PR12		0.81 (0.57 to 0.94)	–18.05 (–40.90 to –5.36)
SIM12 + SOF12		0.94 (0.59 to 1.05)	–5.49 (–39.51 to 4.16)
SOF12 + SIM12 + RBV12		0.97 (0.49 to 1.06)	–2.62 (–48.09 to 5.70)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.08)	0.87 (–5.67 to 7.15)
DCV12 + ASU12 + BEC12 + RBV12		0.97 (0.71 to 1.06)	–2.86 (–28.03 to 5.04)
DCV12 + ASU12 + BEC12		0.93 (0.78 to 1.02)	–6.96 (–21.69 to 1.46)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.71 to 1.03)	–6.67 (–27.54 to 3.00)
GRZ18 + ELB18 (50 mg q.d.)		1.00 (0.85 to 1.07)	–0.32 (–14.94 to 6.72)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.96 (0.76 to 1.05)	–3.63 (–22.85 to 4.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.93 to 1.09)	2.27 (–6.47 to 8.42)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.17 (0.99 to 1.44)	13.36 (–1.01 to 28.19)
SIM12 PR24-48 RGT or SIM12 PR48		0.91 (0.54 to 1.22)	–6.96 (–36.06 to 15.23)
SOF12 + PR12		1.01 (0.71 to 1.29)	0.93 (–23.00 to 18.98)
SIM12 + SOF12		1.17 (0.74 to 1.46)	13.18 (–20.41 to 29.49)
SOF12 + SIM12 + RBV12		1.20 (0.62 to 1.49)	15.78 (–29.28 to 31.87)
GRZ12 + ELB12 + RBV12		1.26 (1.11 to 1.55)	19.92 (9.22 to 34.29)
DCV12 + ASU12 + BEC12 + RBV12		1.20 (0.87 to 1.49)	15.49 (–10.52 to 31.31)
DCV12 + ASU12 + BEC12		1.16 (0.95 to 1.43)	11.94 (–4.31 to 27.51)
GRZ12 + ELB12 (50 mg q.d.)		1.16 (0.88 to 1.44)	12.36 (–10.05 to 28.21)
GRZ18 + ELB18 (50 mg q.d.)		1.24 (1.03 to 1.52)	18.32 (2.71 to 32.87)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.20 (0.94 to 1.47)	15.18 (–4.82 to 30.40)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.28 (1.12 to 1.57)	21.19 (9.74 to 35.78)
SIM12 PR24-48 RGT or SIM12 PR48	DCV24 + ASU24 + PR24	0.78 (0.47 to 0.97)	–20.20 (–46.70 to –2.42)
SOF12 + PR12		0.86 (0.61 to 1.05)	–12.40 (–35.00 to 4.34)
SIM12 + SOF12		1.00 (0.63 to 1.17)	–0.17 (–33.52 to 13.60)
SOF12 + SIM12 + RBV12		1.03 (0.53 to 1.20)	2.47 (–42.38 to 15.83)
GRZ12 + ELB12 + RBV12		1.07 (0.99 to 1.23)	6.37 (–1.23 to 18.39)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12 + RBV12		1.03 (0.74 to 1.19)	2.60 (–23.16 to 15.31)
DCV12 + ASU12 + BEC12		0.99 (0.82 to 1.15)	–1.36 (–16.67 to 11.98)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.76 to 1.15)	–0.96 (–21.68 to 12.21)
GRZ18 + ELB18 (50 mg q.d.)		1.05 (0.90 to 1.22)	4.92 (–9.38 to 17.30)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.02 (0.81 to 1.19)	1.90 (–17.55 to 15.39)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.09 (0.99 to 1.25)	7.69 (–1.16 to 19.87)
SOF12 + PR12	SIM12 PR24-48 RGT or SIM12 PR48	1.11 (0.74 to 1.87)	7.85 (–20.32 to 37.69)
SIM12 + SOF12		1.27 (0.77 to 2.17)	19.16 (–17.08 to 49.71)
SOF12 + SIM12 + RBV12		1.30 (0.67 to 2.21)	21.29 (–23.76 to 51.76)
GRZ12 + ELB12 + RBV12		1.39 (1.10 to 2.35)	27.07 (8.30 to 55.22)
DCV12 + ASU12 + BEC12 + RBV12		1.31 (0.91 to 2.21)	22.05 (–6.79 to 51.03)
DCV12 + ASU12 + BEC12		1.27 (0.96 to 2.15)	18.74 (–3.67 to 47.55)
GRZ12 + ELB12 (50 mg q.d.)		1.27 (0.91 to 2.15)	19.14 (–7.55 to 48.06)
GRZ18 + ELB18 (50 mg q.d.)		1.36 (1.04 to 2.31)	25.12 (3.32 to 53.94)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.31 (0.96 to 2.23)	21.89 (–3.38 to 51.15)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.41 (1.10 to 2.40)	28.23 (8.86 to 56.89)
SIM12 + SOF12	SOF12 + PR12	1.14 (0.81 to 1.47)	11.39 (–14.26 to 28.92)
SOF12 + SIM12 + RBV12		1.17 (0.66 to 1.56)	13.81 (–25.87 to 33.11)
GRZ12 + ELB12 + RBV12		1.24 (1.07 to 1.76)	18.89 (6.08 to 41.59)
DCV12 + ASU12 + BEC12 + RBV12		1.18 (0.86 to 1.66)	14.47 (–11.73 to 36.91)
DCV12 + ASU12 + BEC12		1.14 (0.92 to 1.61)	10.74 (–6.95 to 33.83)
GRZ12 + ELB12 (50 mg q.d.)		1.14 (0.86 to 1.63)	11.27 (–11.44 to 35.11)
GRZ18 + ELB18 (50 mg q.d.)		1.22 (1.00 to 1.74)	17.24 (0.26 to 40.62)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.18 (0.90 to 1.68)	14.10 (–8.14 to 38.08)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.26 (1.08 to 1.79)	20.08 (6.72 to 43.28)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	1.02 (0.63 to 1.34)	2.09 (–29.24 to 21.90)
GRZ12 + ELB12 + RBV12		1.07 (0.96 to 1.71)	6.43 (–3.40 to 39.95)
DCV12 + ASU12 + BEC12 + RBV12		1.02 (0.76 to 1.60)	2.17 (–22.00 to 34.48)
DCV12 + ASU12 + BEC12		0.99 (0.82 to 1.57)	–1.34 (–17.49 to 32.52)
GRZ12 + ELB12 (50 mg q.d.)		0.99 (0.76 to 1.57)	–0.57 (–22.48 to 32.21)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.)		1.06 (0.89 to 1.67)	5.06 (–10.40 to 37.67)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.02 (0.81 to 1.61)	1.81 (–18.07 to 34.91)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.09 (0.96 to 1.75)	7.75 (–3.60 to 41.87)
GRZ12 + ELB12 + RBV12	SOF12 + SIM12 + RBV12	1.04 (0.95 to 2.06)	3.38 (–5.20 to 49.85)
DCV12 + ASU12 + BEC12 + RBV12		1.00 (0.75 to 1.93)	–0.25 (–23.80 to 45.30)
DCV12 + ASU12 + BEC12		0.96 (0.80 to 1.85)	–3.79 (–19.48 to 41.03)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.74 to 1.82)	–2.92 (–24.54 to 39.01)
GRZ18 + ELB18 (50 mg q.d.)		1.03 (0.87 to 1.97)	2.37 (–12.87 to 46.55)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.99 (0.79 to 1.86)	–0.56 (–19.95 to 41.34)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.05 (0.94 to 2.05)	4.65 (–5.43 to 49.76)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12 + RBV12	0.96 (0.70 to 1.04)	–3.84 (–29.50 to 4.12)
DCV12 + ASU12 + BEC12		0.92 (0.77 to 1.01)	–7.81 (–22.51 to 0.60)
GRZ12 + ELB12 (50 mg q.d.)		0.92 (0.71 to 1.02)	–7.41 (–28.36 to 2.05)
GRZ18 + ELB18 (50 mg q.d.)		0.99 (0.84 to 1.06)	–1.00 (–15.99 to 5.72)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.95 (0.75 to 1.05)	–4.48 (–24.20 to 4.12)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.02 (0.92 to 1.08)	1.46 (–7.64 to 7.64)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.96 (0.85 to 1.22)	–3.58 (–14.29 to 15.41)
GRZ12 + ELB12 (50 mg q.d.)		0.97 (0.74 to 1.33)	–3.04 (–24.30 to 22.35)
GRZ18 + ELB18 (50 mg q.d.)		1.03 (0.87 to 1.42)	2.45 (–12.74 to 28.10)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.00 (0.80 to 1.36)	–0.30 (–18.73 to 24.34)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.05 (0.96 to 1.46)	5.09 (–3.56 to 30.71)
GRZ12 + ELB12 (50 mg q.d.)	DCV12 + ASU12 + BEC12	1.01 (0.77 to 1.22)	0.52 (–21.11 to 16.58)
GRZ18 + ELB18 (50 mg q.d.)		1.07 (0.90 to 1.29)	6.35 (–8.89 to 21.67)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.04 (0.83 to 1.25)	3.22 (–15.49 to 18.77)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.10 (1.00 to 1.32)	9.01 (–0.40 to 23.87)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	1.06 (0.92 to 1.37)	5.52 (–7.56 to 25.76)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.03 (0.84 to 1.31)	2.56 (–14.81 to 22.04)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.10 (0.99 to 1.42)	8.54 (–0.88 to 29.10)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ18 + ELB18 (50 mg q.d.)	0.97 (0.77 to 1.13)	–2.86 (–21.64 to 10.69)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.03 (0.94 to 1.21)	2.40 (–5.94 to 16.97)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	1.06 (0.96 to 1.34)	5.78 (–3.53 to 24.83)
Random effect model	Residual deviance	59.84 vs. 65 data points	
	Deviance information criteria	341.045	
Fixed effect model	Residual deviance	60.06 vs. 65 data points	
	Deviance information criteria	339.951	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 163: GENOTYPE 1A TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	PR48	2.09 (0.94 to 3.04)	28.28 (–1.61 to 49.03)
SIM12 PR24-48 RGT		2.54 (1.42 to 3.44)	39.85 (10.83 to 57.78)
SIM12 PR48		2.11 (0.67 to 3.23)	28.82 (–8.55 to 53.79)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.76 (3.07 to 4.55)	71.51 (58.86 to 76.61)
DCV24 + ASU24 + PR24		3.22 (1.86 to 4.06)	57.71 (22.17 to 69.83)
SIM12 PR24-48 RGT or SIM12 PR48		2.91 (1.07 to 3.92)	49.96 (1.70 to 67.78)
B32 PR36-48 RGT		2.04 (0.97 to 3.22)	26.78 (–0.92 to 52.96)
SOF12 + PR12		3.02 (1.85 to 3.92)	52.37 (22.37 to 66.75)
SIM12 + SOF12		3.55 (2.21 to 4.40)	66.87 (31.85 to 75.15)
SOF12 + LDV12		3.62 (2.85 to 4.42)	67.96 (51.18 to 74.93)
SOF24 + LDV24		3.21 (0.50 to 4.26)	58.43 (–12.72 to 74.43)
SOF12 + LDV12 + RBV12		3.65 (2.99 to 4.42)	68.50 (57.26 to 74.51)
SOF24 + LDV24 + RBV24		3.79 (3.14 to 4.59)	72.05 (62.61 to 77.17)
GRZ12 + ELB12 + RBV12		3.57 (2.72 to 4.41)	67.08 (46.77 to 75.10)
DCV12 + ASU12 + BEC12 + RBV12		3.36 (1.68 to 4.30)	61.95 (17.64 to 73.90)
DCV12 + ASU12 + BEC12		3.25 (2.24 to 4.12)	58.70 (32.78 to 70.12)
SIM12 PR24-48 RGT	T12 PR48 q8	1.20 (0.68 to 2.59)	10.93 (–20.04 to 44.29)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR48		1.01 (0.51 to 1.48)	0.50 (–20.90 to 19.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.79 (1.32 to 3.63)	42.93 (23.59 to 65.55)
DCV24 + ASU24 + PR24		1.52 (0.91 to 3.21)	28.24 (–5.49 to 58.74)
SIM12 PR24-48 RGT or SIM12 PR48		1.36 (0.72 to 2.26)	20.28 (–11.79 to 42.60)
B32 PR36-48 RGT		0.97 (0.46 to 2.38)	–1.38 (–34.82 to 38.71)
SOF12 + PR12		1.43 (0.88 to 3.07)	23.35 (–7.64 to 54.39)
SIM12 + SOF12		1.68 (1.04 to 3.53)	37.26 (2.75 to 65.32)
SOF12 + LDV12		1.72 (1.21 to 3.72)	39.20 (14.76 to 66.96)
SOF24 + LDV24		1.49 (0.24 to 3.27)	27.88 (–41.82 to 62.97)
SOF12 + LDV12 + RBV12		1.74 (1.24 to 3.83)	39.94 (17.80 to 68.10)
SOF24 + LDV24 + RBV24		1.80 (1.30 to 4.04)	43.52 (21.90 to 72.17)
GRZ12 + ELB12 + RBV12		1.70 (1.16 to 3.73)	38.04 (11.01 to 67.52)
DCV12 + ASU12 + BEC12 + RBV12		1.59 (0.81 to 3.31)	32.33 (–10.44 to 62.19)
DCV12 + ASU12 + BEC12		1.55 (1.01 to 3.25)	29.70 (0.62 to 58.79)
SIM12 PR48	SIM12 PR24-48 RGT	0.84 (0.28 to 1.51)	–10.31 (–49.88 to 22.89)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.48 (1.13 to 2.56)	31.45 (10.57 to 57.90)
DCV24 + ASU24 + PR24		1.26 (0.95 to 1.76)	16.84 (–3.02 to 33.65)
SIM12 PR24-48 RGT or SIM12 PR48		1.15 (0.45 to 1.94)	9.81 (–36.96 to 39.99)
B32 PR36-48 RGT		0.81 (0.38 to 1.59)	–12.54 (–45.18 to 24.97)
SOF12 + PR12		1.19 (0.72 to 2.06)	12.49 (–21.11 to 42.50)
SIM12 + SOF12		1.39 (0.88 to 2.39)	26.01 (–8.49 to 53.79)
SOF12 + LDV12		1.42 (1.06 to 2.46)	27.88 (4.77 to 55.36)
SOF24 + LDV24		1.26 (0.20 to 2.24)	17.43 (–53.47 to 49.99)
SOF12 + LDV12 + RBV12		1.44 (1.10 to 2.53)	28.56 (7.82 to 56.54)
SOF24 + LDV24 + RBV24		1.49 (1.15 to 2.62)	32.05 (12.63 to 59.87)
GRZ12 + ELB12 + RBV12		1.40 (1.03 to 2.47)	26.46 (1.90 to 55.29)
DCV12 + ASU12 + BEC12 + RBV12		1.31 (0.69 to 2.29)	20.77 (–21.68 to 50.58)
DCV12 + ASU12 + BEC12		1.27 (0.86 to 2.21)	18.15 (–10.64 to 47.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SIM12 PR48	1.77 (1.24 to 5.12)	42.26 (18.38 to 73.82)
DCV24 + ASU24 + PR24		1.50 (0.88 to 4.35)	27.50 (–7.40 to 64.26)
SIM12 PR24-48 RGT or SIM12 PR48		1.35 (0.93 to 2.38)	19.11 (–3.17 to 38.83)
B32 PR36-48 RGT		0.97 (0.45 to 3.11)	–1.78 (–37.70 to 43.97)
SOF12 + PR12		1.42 (0.84 to 4.18)	22.79 (–10.76 to 59.81)
SIM12 + SOF12		1.66 (1.00 to 4.88)	36.62 (0.08 to 71.30)
SOF12 + LDV12		1.70 (1.14 to 5.11)	38.56 (10.88 to 73.17)
SOF24 + LDV24		1.46 (0.24 to 4.49)	26.74 (–44.63 to 68.71)
SOF12 + LDV12 + RBV12		1.72 (1.17 to 5.32)	39.43 (13.60 to 74.64)
SOF24 + LDV24 + RBV24		1.78 (1.22 to 5.50)	42.89 (17.49 to 78.40)
GRZ12 + ELB12 + RBV12		1.68 (1.10 to 5.23)	37.29 (7.74 to 73.78)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12 + RBV12		1.57 (0.80 to 4.52)	31.60 (–13.08 to 67.97)
DCV12 + ASU12 + BEC12		1.53 (0.97 to 4.48)	29.20 (–2.21 to 64.41)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.86 (0.51 to 1.01)	–13.58 (–45.63 to 1.07)
SIM12 PR24-48 RGT or SIM12 PR48		0.78 (0.30 to 0.96)	–21.20 (–63.63 to –4.24)
B32 PR36-48 RGT		0.54 (0.27 to 0.83)	–44.45 (–70.31 to –15.55)
SOF12 + PR12		0.81 (0.52 to 0.97)	–18.72 (–45.82 to –2.71)
SIM12 + SOF12		0.96 (0.62 to 1.07)	–4.21 (–36.62 to 6.31)
SOF12 + LDV12		0.97 (0.81 to 1.08)	–3.25 (–17.95 to 7.23)
SOF24 + LDV24		0.87 (0.13 to 1.05)	–12.53 (–83.88 to 4.36)
SOF12 + LDV12 + RBV12		0.97 (0.87 to 1.09)	–2.90 (–12.49 to 7.99)
SOF24 + LDV24 + RBV24		1.01 (0.93 to 1.14)	0.54 (–7.18 to 11.80)
GRZ12 + ELB12 + RBV12		0.96 (0.76 to 1.09)	–4.12 (–23.48 to 7.73)
DCV12 + ASU12 + BEC12 + RBV12		0.91 (0.46 to 1.04)	–9.03 (–51.18 to 3.90)
DCV12 + ASU12 + BEC12		0.87 (0.62 to 1.01)	–12.49 (–36.02 to 0.59)
SIM12 PR24-48 RGT or SIM12 PR48	DCV24 + ASU24 + PR24	0.92 (0.36 to 1.45)	–7.11 (–52.24 to 25.48)
B32 PR36-48 RGT		0.64 (0.31 to 1.22)	–29.67 (–59.70 to 11.47)
SOF12 + PR12		0.94 (0.60 to 1.56)	–4.83 (–34.65 to 28.55)
SIM12 + SOF12		1.10 (0.73 to 1.81)	8.63 (–22.93 to 40.36)
SOF12 + LDV12		1.12 (0.91 to 1.87)	10.22 (–8.20 to 42.46)
SOF24 + LDV24		1.01 (0.16 to 1.67)	1.05 (–69.93 to 35.41)
SOF12 + LDV12 + RBV12		1.13 (0.95 to 1.93)	10.56 (–4.28 to 44.74)
SOF24 + LDV24 + RBV24		1.17 (1.01 to 2.01)	14.18 (0.86 to 47.96)
GRZ12 + ELB12 + RBV12		1.11 (0.86 to 1.87)	9.05 (–12.30 to 42.11)
DCV12 + ASU12 + BEC12 + RBV12		1.05 (0.56 to 1.70)	4.09 (–37.26 to 36.24)
DCV12 + ASU12 + BEC12		1.01 (0.73 to 1.68)	0.92 (–24.15 to 33.96)
B32 PR36-48 RGT	SIM12 PR24-48 RGT or SIM12 PR48	0.71 (0.35 to 2.03)	–21.83 (–54.80 to 30.12)
SOF12 + PR12		1.03 (0.66 to 2.68)	2.49 (–27.89 to 47.86)
SIM12 + SOF12		1.21 (0.80 to 3.12)	15.98 (–16.98 to 59.64)
SOF12 + LDV12		1.23 (0.96 to 3.30)	17.67 (–3.75 to 62.31)
SOF24 + LDV24		1.09 (0.18 to 2.87)	7.10 (–62.49 to 56.03)
SOF12 + LDV12 + RBV12		1.24 (0.99 to 3.42)	18.25 (–0.90 to 64.97)
SOF24 + LDV24 + RBV24		1.29 (1.04 to 3.56)	21.78 (3.55 to 68.45)
GRZ12 + ELB12 + RBV12		1.22 (0.91 to 3.29)	16.50 (–7.73 to 63.38)
DCV12 + ASU12 + BEC12 + RBV12		1.15 (0.61 to 2.88)	11.28 (–31.55 to 55.61)
DCV12 + ASU12 + BEC12		1.11 (0.78 to 2.90)	8.38 (–19.30 to 52.85)
SOF12 + PR12	B32 PR36-48 RGT	1.47 (0.81 to 2.98)	24.86 (–13.09 to 54.99)
SIM12 + SOF12		1.72 (0.98 to 3.49)	38.38 (–1.15 to 66.21)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12		1.77 (1.13 to 3.57)	40.59 (9.89 to 67.12)
SOF24 + LDV24		1.52 (0.24 to 3.27)	28.74 (–43.51 to 63.96)
SOF12 + LDV12 + RBV12		1.79 (1.18 to 3.67)	41.28 (13.74 to 68.28)
SOF24 + LDV24 + RBV24		1.85 (1.23 to 3.78)	44.88 (17.90 to 71.53)
GRZ12 + ELB12 + RBV12		1.74 (1.12 to 3.58)	39.26 (8.80 to 66.92)
DCV12 + ASU12 + BEC12 + RBV12		1.62 (0.79 to 3.30)	33.20 (–13.15 to 63.45)
DCV12 + ASU12 + BEC12		1.59 (0.94 to 3.22)	30.99 (–4.14 to 59.59)
SIM12 + SOF12	SOF12 + PR12	1.16 (0.87 to 1.64)	12.94 (–9.27 to 34.39)
SOF12 + LDV12		1.19 (0.95 to 1.87)	15.13 (–4.69 to 42.85)
SOF24 + LDV24		1.07 (0.16 to 1.69)	5.48 (–65.06 to 37.35)
SOF12 + LDV12 + RBV12		1.20 (0.99 to 1.92)	15.66 (–0.60 to 44.47)
SOF24 + LDV24 + RBV24		1.25 (1.05 to 1.99)	19.25 (4.32 to 48.23)
GRZ12 + ELB12 + RBV12		1.18 (0.90 to 1.87)	13.96 (–8.57 to 42.76)
DCV12 + ASU12 + BEC12 + RBV12		1.11 (0.59 to 1.73)	8.67 (–32.93 to 38.01)
DCV12 + ASU12 + BEC12		1.07 (0.76 to 1.69)	5.86 (–20.14 to 35.24)
SOF12 + LDV12	SIM12 + SOF12	1.01 (0.85 to 1.56)	0.89 (–14.28 to 32.87)
SOF24 + LDV24		0.92 (0.14 to 1.41)	–7.56 (–79.23 to 26.03)
SOF12 + LDV12 + RBV12		1.02 (0.90 to 1.60)	1.49 (–9.57 to 34.99)
SOF24 + LDV24 + RBV24		1.05 (0.96 to 1.65)	4.85 (–4.33 to 37.82)
GRZ12 + ELB12 + RBV12		1.00 (0.79 to 1.55)	0.28 (–19.76 to 32.65)
DCV12 + ASU12 + BEC12 + RBV12		0.95 (0.50 to 1.45)	–4.26 (–45.27 to 27.70)
DCV12 + ASU12 + BEC12		0.92 (0.66 to 1.41)	–7.68 (–31.36 to 25.06)
SOF24 + LDV24	SOF12 + LDV12	0.91 (0.14 to 1.14)	–8.91 (–79.24 to 11.18)
SOF12 + LDV12 + RBV12		1.00 (0.92 to 1.19)	0.36 (–8.10 to 14.53)
SOF24 + LDV24 + RBV24		1.04 (0.96 to 1.23)	3.74 (–3.64 to 18.20)
GRZ12 + ELB12 + RBV12		0.99 (0.78 to 1.19)	–0.69 (–21.22 to 15.42)
DCV12 + ASU12 + BEC12 + RBV12		0.94 (0.48 to 1.15)	–5.60 (–47.73 to 12.21)
DCV12 + ASU12 + BEC12		0.90 (0.65 to 1.10)	–8.99 (–32.58 to 7.98)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.11 (0.94 to 7.27)	9.53 (–5.58 to 79.18)
SOF24 + LDV24 + RBV24		1.16 (0.97 to 7.68)	13.19 (–3.11 to 84.51)
GRZ12 + ELB12 + RBV12		1.10 (0.82 to 7.25)	8.07 (–17.19 to 79.71)
DCV12 + ASU12 + BEC12 + RBV12		1.04 (0.54 to 6.88)	3.31 (–41.25 to 76.97)
DCV12 + ASU12 + BEC12		1.00 (0.69 to 6.66)	0.16 (–28.50 to 73.24)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.04 (0.96 to 1.15)	3.35 (–3.61 to 12.46)
GRZ12 + ELB12 + RBV12		0.99 (0.78 to 1.11)	–1.34 (–21.26 to 9.87)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.47 to 1.09)	–6.21 (–49.67 to 7.67)
DCV12 + ASU12 + BEC12		0.90 (0.63 to 1.04)	–9.51 (–34.35 to 3.65)
GRZ12 + ELB12 + RBV12	SOF24 + LDV24 + RBV24	0.95 (0.75 to 1.06)	–4.71 (–24.77 to 5.02)
DCV12 + ASU12 + BEC12 + RBV12		0.90 (0.45 to 1.03)	–9.71 (–52.53 to 2.66)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + ASU12 + BEC12		0.87 (0.61 to 0.99)	–13.03 (–38.02 to –1.28)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12 + RBV12	0.95 (0.48 to 1.22)	–4.70 (–47.92 to 16.71)
DCV12 + ASU12 + BEC12		0.91 (0.64 to 1.19)	–8.02 (–33.25 to 14.08)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.97 (0.77 to 1.63)	–2.85 (–19.85 to 29.42)
Random effect model	Residual deviance	31.73 vs. 32 data points	
	Deviance information criteria	186.006	
Fixed effect model	Residual deviance	31.46 vs. 32 data points	
	Deviance information criteria	185.429	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 164: GENOTYPE 1B TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	3.44 (2.07 to 4.53)	52.91 (23.31 to 70.69)
SOF24 + LDV24		4.14 (2.06 to 5.17)	69.37 (22.63 to 78.68)
SOF12 + LDV12 + RBV12		4.28 (3.54 to 5.19)	71.04 (60.39 to 77.26)
SOF24 + LDV24 + RBV24		4.03 (2.60 to 5.07)	66.36 (34.77 to 77.83)
T12 PR48 q8		3.82 (2.84 to 4.82)	61.21 (41.29 to 72.69)
SIM12 PR24-48 RGT		3.08 (1.94 to 3.99)	44.95 (20.44 to 60.38)
SIM12 PR48		3.70 (2.33 to 4.79)	58.77 (29.22 to 72.66)
PAR/RIT12 + OMB12 + DAS12		4.39 (3.46 to 5.30)	73.90 (56.03 to 79.61)
DCV24 + ASU24		3.62 (2.76 to 4.53)	56.63 (40.25 to 67.23)
DCV24 + ASU24 + PR24		4.60 (3.91 to 5.51)	77.56 (73.25 to 81.27)
SIM12 PR24-48 RGT or SIM12 PR48		3.87 (1.30 to 5.08)	62.79 (6.57 to 78.24)
B32 PR36-48 RGT		2.95 (1.73 to 4.16)	42.17 (16.26 to 62.95)
SOF12 PR12		3.36 (1.65 to 4.66)	51.03 (14.41 to 72.00)
GRZ12 + ELB12 + RBV12		4.56 (3.85 to 5.45)	76.72 (70.43 to 80.71)
DCV12 + ASU12 + BEC12 + RBV12		3.98 (0.84 to 5.18)	66.10 (–3.44 to 79.19)
DCV12 + ASU12 + BEC12		4.31 (3.32 to 5.26)	72.23 (52.36 to 79.01)
SOF24 + LDV24	SOF12 + LDV12	1.19 (0.60 to 1.99)	14.53 (–31.04 to 46.70)
SOF12 + LDV12 + RBV12		1.24 (0.99 to 2.06)	17.82 (–1.05 to 47.07)
SOF24 + LDV24 + RBV24		1.17 (0.74 to 1.93)	12.47 (–20.30 to 43.72)
T12 PR48 q8		1.11 (0.80 to 1.84)	8.12 (–16.81 to 38.93)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.89 (0.55 to 1.54)	–7.93 (–37.49 to 25.23)
SIM12 PR48		1.07 (0.68 to 1.80)	5.61 (–25.93 to 37.62)
PAR/RIT12 + OMB12 + DAS12		1.27 (0.97 to 2.12)	19.98 (–2.43 to 50.82)
DCV24 + ASU24		1.05 (0.78 to 1.75)	3.49 (–19.81 to 34.53)
DCV24 + ASU24 + PR24		1.33 (1.07 to 2.22)	24.55 (6.56 to 54.42)
SIM12 PR24-48 RGT or SIM12 PR48		1.11 (0.39 to 1.83)	8.79 (–48.53 to 41.70)
B32 PR36-48 RGT		0.86 (0.49 to 1.50)	–10.35 (–41.71 to 24.83)
SOF12 PR12		0.98 (0.48 to 1.72)	–1.66 (–41.95 to 34.77)
GRZ12 + ELB12 + RBV12		1.31 (1.06 to 2.21)	23.47 (5.58 to 53.66)
DCV12 + ASU12 + BEC12 + RBV12		1.13 (0.25 to 1.92)	10.48 (–56.94 to 44.45)
DCV12 + ASU12 + BEC12		1.25 (0.93 to 2.08)	18.53 (–6.47 to 48.92)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.02 (0.90 to 2.02)	1.73 (–9.21 to 44.95)
SOF24 + LDV24 + RBV24		0.98 (0.64 to 1.94)	–1.95 (–32.82 to 43.89)
T12 PR48 q8		0.92 (0.69 to 1.84)	–7.11 (–29.21 to 37.80)
SIM12 PR24-48 RGT		0.75 (0.47 to 1.50)	–22.77 (–49.83 to 23.02)
SIM12 PR48		0.90 (0.58 to 1.79)	–9.17 (–38.80 to 36.36)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.85 to 2.09)	4.31 (–14.73 to 49.20)
DCV24 + ASU24		0.87 (0.69 to 1.71)	–11.78 (–29.89 to 32.60)
DCV24 + ASU24 + PR24		1.09 (1.00 to 2.24)	8.11 (–0.20 to 54.47)
SIM12 PR24-48 RGT or SIM12 PR48		0.95 (0.33 to 1.80)	–4.68 (–59.41 to 38.25)
B32 PR36-48 RGT		0.73 (0.43 to 1.44)	–24.42 (–54.49 to 21.05)
SOF12 PR12		0.82 (0.41 to 1.71)	–16.00 (–55.18 to 33.21)
GRZ12 + ELB12 + RBV12		1.08 (0.97 to 2.22)	7.26 (–2.88 to 53.33)
DCV12 + ASU12 + BEC12 + RBV12		0.97 (0.20 to 1.92)	–2.43 (–73.17 to 43.35)
DCV12 + ASU12 + BEC12		1.03 (0.82 to 2.09)	2.76 (–17.14 to 48.39)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.95 (0.61 to 1.11)	–4.60 (–35.48 to 9.75)
T12 PR48 q8		0.90 (0.68 to 1.05)	–9.63 (–29.74 to 4.59)
SIM12 PR24-48 RGT		0.72 (0.45 to 0.91)	–25.74 (–50.41 to –7.74)
SIM12 PR48		0.87 (0.55 to 1.05)	–12.06 (–41.03 to 4.09)
PAR/RIT12 + OMB12 + DAS12		1.03 (0.84 to 1.16)	2.62 (–14.94 to 13.66)
DCV24 + ASU24		0.85 (0.69 to 0.96)	–14.08 (–28.31 to –3.88)
DCV24 + ASU24 + PR24		1.07 (1.01 to 1.20)	6.26 (1.39 to 16.69)
SIM12 PR24-48 RGT or SIM12 PR48		0.91 (0.32 to 1.09)	–7.96 (–60.90 to 7.79)
B32 PR36-48 RGT		0.69 (0.41 to 0.93)	–28.50 (–54.96 to –6.01)
SOF12 PR12		0.79 (0.40 to 1.04)	–19.60 (–55.45 to 3.36)
GRZ12 + ELB12 + RBV12		1.06 (0.99 to 1.19)	5.31 (–1.18 to 15.97)
DCV12 + ASU12 + BEC12 + RBV12		0.95 (0.19 to 1.13)	–4.91 (–74.51 to 11.04)
DCV12 + ASU12 + BEC12		1.01 (0.81 to 1.15)	1.16 (–18.26 to 12.27)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.95 (0.71 to 1.49)	–4.81 (–26.79 to 28.21)
SIM12 PR24-48 RGT		0.77 (0.48 to 1.21)	–20.15 (–47.41 to 12.52)
SIM12 PR48		0.92 (0.59 to 1.46)	–7.08 (–36.94 to 26.49)
PAR/RIT12 + OMB12 + DAS12		1.08 (0.85 to 1.67)	7.04 (–13.74 to 38.38)
DCV24 + ASU24		0.89 (0.69 to 1.39)	–9.40 (–29.31 to 22.25)
DCV24 + ASU24 + PR24		1.13 (1.00 to 1.77)	11.03 (0.16 to 42.89)
SIM12 PR24-48 RGT or SIM12 PR48		0.97 (0.32 to 1.54)	–2.86 (–61.16 to 32.37)
B32 PR36-48 RGT		0.74 (0.43 to 1.21)	–22.55 (–52.31 to 12.99)
SOF12 PR12		0.83 (0.42 to 1.42)	–14.61 (–52.94 to 24.53)
GRZ12 + ELB12 + RBV12		1.11 (0.98 to 1.75)	10.07 (–1.56 to 42.06)
DCV12 + ASU12 + BEC12 + RBV12		0.99 (0.21 to 1.55)	–0.80 (–67.83 to 33.65)
DCV12 + ASU12 + BEC12		1.06 (0.83 to 1.66)	5.30 (–15.71 to 37.37)
SIM12 PR24-48 RGT	T12 PR48 q8	0.81 (0.52 to 1.11)	–16.10 (–41.58 to 7.33)
SIM12 PR48		0.97 (0.74 to 1.09)	–2.37 (–19.08 to 7.04)
PAR/RIT12 + OMB12 + DAS12		1.14 (0.92 to 1.50)	11.85 (–7.25 to 31.59)
DCV24 + ASU24		0.94 (0.73 to 1.26)	–4.62 (–23.80 to 17.17)
DCV24 + ASU24 + PR24		1.19 (1.06 to 1.57)	16.13 (5.54 to 35.80)
SIM12 PR24-48 RGT or SIM12 PR48		1.02 (0.35 to 1.39)	1.42 (–54.55 to 26.22)
B32 PR36-48 RGT		0.77 (0.46 to 1.14)	–18.59 (–46.44 to 9.17)
SOF12 PR12		0.88 (0.44 to 1.27)	–9.96 (–47.02 to 18.40)
GRZ12 + ELB12 + RBV12		1.18 (1.04 to 1.55)	15.25 (3.47 to 34.77)
DCV12 + ASU12 + BEC12 + RBV12		1.05 (0.21 to 1.42)	4.38 (–66.03 to 28.10)
DCV12 + ASU12 + BEC12		1.12 (0.88 to 1.48)	10.38 (–10.46 to 30.95)
SIM12 PR48	SIM12 PR24-48 RGT	1.20 (0.77 to 1.89)	13.53 (–16.35 to 40.32)
PAR/RIT12 + OMB12 + DAS12		1.42 (1.16 to 2.11)	27.67 (12.51 to 48.72)
DCV24 + ASU24		1.17 (0.87 to 1.85)	11.56 (–9.81 to 36.69)
DCV24 + ASU24 + PR24		1.49 (1.21 to 2.37)	32.52 (16.84 to 57.19)
SIM12 PR24-48 RGT or SIM12 PR48		1.25 (0.43 to 2.00)	16.94 (–38.73 to 46.46)
B32 PR36-48 RGT		0.96 (0.56 to 1.61)	–2.38 (–32.10 to 27.98)
SOF12 PR12		1.09 (0.54 to 1.83)	6.22 (–32.99 to 38.64)
GRZ12 + ELB12 + RBV12		1.48 (1.19 to 2.34)	31.57 (15.17 to 56.10)
DCV12 + ASU12 + BEC12 + RBV12		1.29 (0.28 to 2.05)	19.97 (–48.08 to 48.01)
DCV12 + ASU12 + BEC12		1.40 (1.04 to 2.20)	26.61 (3.14 to 51.27)
PAR/RIT12 + OMB12 + DAS12	SIM12 PR48	1.18 (0.93 to 1.83)	14.31 (–6.18 to 42.31)
DCV24 + ASU24		0.97 (0.74 to 1.53)	–2.17 (–23.05 to 27.71)
DCV24 + ASU24 + PR24		1.23 (1.06 to 1.94)	18.60 (5.46 to 47.78)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT or SIM12 PR48		1.05 (0.36 to 1.63)	3.69 (–52.22 to 34.78)
B32 PR36-48 RGT		0.80 (0.47 to 1.31)	–15.88 (–45.37 to 16.69)
SOF12 PR12		0.91 (0.46 to 1.48)	–7.26 (–45.55 to 27.01)
GRZ12 + ELB12 + RBV12		1.22 (1.04 to 1.93)	17.78 (3.62 to 47.10)
DCV12 + ASU12 + BEC12 + RBV12		1.08 (0.22 to 1.68)	6.43 (–63.74 to 37.41)
DCV12 + ASU12 + BEC12		1.16 (0.89 to 1.80)	12.72 (–9.29 to 41.22)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12	0.82 (0.66 to 1.03)	–16.77 (–33.34 to 2.53)
DCV24 + ASU24 + PR24		1.04 (0.99 to 1.27)	3.32 (–1.01 to 21.02)
SIM12 PR24-48 RGT or SIM12 PR48		0.89 (0.30 to 1.13)	–10.34 (–65.06 to 10.90)
B32 PR36-48 RGT		0.68 (0.40 to 0.94)	–30.70 (–57.18 to –5.39)
SOF12 PR12		0.77 (0.39 to 1.04)	–21.73 (–58.21 to 3.51)
GRZ12 + ELB12 + RBV12		1.03 (0.96 to 1.26)	2.54 (–4.08 to 20.46)
DCV12 + ASU12 + BEC12 + RBV12		0.93 (0.19 to 1.17)	–6.84 (–76.77 to 13.66)
DCV12 + ASU12 + BEC12		0.99 (0.78 to 1.21)	–1.42 (–20.92 to 16.35)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.27 (1.12 to 1.60)	20.85 (10.74 to 36.90)
SIM12 PR24-48 RGT or SIM12 PR48		1.07 (0.37 to 1.41)	5.88 (–47.95 to 27.73)
B32 PR36-48 RGT		0.82 (0.49 to 1.18)	–14.23 (–41.54 to 11.96)
SOF12 PR12		0.93 (0.47 to 1.32)	–5.41 (–42.10 to 21.46)
GRZ12 + ELB12 + RBV12		1.25 (1.10 to 1.58)	19.90 (9.09 to 36.10)
DCV12 + ASU12 + BEC12 + RBV12		1.11 (0.23 to 1.45)	8.80 (–60.77 to 29.52)
DCV12 + ASU12 + BEC12		1.19 (0.94 to 1.50)	15.15 (–5.36 to 31.97)
SIM12 PR24-48 RGT or SIM12 PR48	DCV24 + ASU24 + PR24	0.85 (0.29 to 1.00)	–14.68 (–70.68 to –0.09)
B32 PR36-48 RGT		0.64 (0.38 to 0.85)	–35.28 (–60.87 to –15.02)
SOF12 PR12		0.73 (0.37 to 0.94)	–26.36 (–62.81 to –5.49)
GRZ12 + ELB12 + RBV12		0.99 (0.94 to 1.02)	–0.66 (–6.13 to 2.04)
DCV12 + ASU12 + BEC12 + RBV12		0.89 (0.18 to 1.01)	–11.32 (–81.01 to 0.70)
DCV12 + ASU12 + BEC12		0.95 (0.75 to 1.00)	–5.01 (–24.74 to 0.38)
B32 PR36-48 RGT	SIM12 PR24-48 RGT or SIM12 PR48	0.78 (0.44 to 2.31)	–19.01 (–51.52 to 39.07)
SOF12 PR12		0.88 (0.44 to 2.73)	–9.85 (–50.99 to 50.93)
GRZ12 + ELB12 + RBV12		1.16 (0.99 to 3.48)	13.69 (–1.46 to 70.01)
DCV12 + ASU12 + BEC12 + RBV12		1.02 (0.22 to 2.82)	1.99 (–68.17 to 58.73)
DCV12 + ASU12 + BEC12		1.10 (0.85 to 3.17)	8.77 (–13.83 to 62.51)
SOF12 PR12	B32 PR36-48 RGT	1.13 (0.54 to 2.03)	8.53 (–33.29 to 42.88)
GRZ12 + ELB12 + RBV12		1.54 (1.16 to 2.58)	34.29 (13.29 to 60.04)
DCV12 + ASU12 + BEC12 + RBV12		1.31 (0.29 to 2.30)	20.87 (–46.73 to 53.17)
DCV12 + ASU12 + BEC12		1.45 (1.03 to 2.45)	29.05 (2.64 to 55.87)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 + RBV12	SOF12 PR12	1.35 (1.04 to 2.69)	25.42 (3.94 to 61.62)
DCV12 + ASU12 + BEC12 + RBV12		1.15 (0.25 to 2.37)	11.56 (–58.21 to 53.64)
DCV12 + ASU12 + BEC12		1.28 (0.92 to 2.55)	20.13 (–7.01 to 57.30)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12 + RBV12	0.90 (0.18 to 1.03)	–10.15 (–80.06 to 2.64)
DCV12 + ASU12 + BEC12		0.96 (0.76 to 1.03)	–4.17 (–23.74 to 3.16)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	1.06 (0.88 to 4.95)	5.42 (–11.15 to 70.82)
Random effect model	Residual deviance	38.62 vs. 40 data points	
	Deviance information criteria	200.83	
Fixed effect model	Residual deviance	38.33 vs. 40 data points	
	Deviance information criteria	200.074	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 165: GENOTYPE 1 WITH CIRRHOSIS TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	4.57 (2.51 to 7.03)	57.38 (25.48 to 75.35)
SOF24 + LDV24		4.79 (1.59 to 7.68)	61.82 (9.39 to 81.47)
SOF12 + LDV12 + RBV12		4.90 (3.15 to 7.44)	62.41 (37.31 to 76.96)
SOF24 + LDV24 + RBV24		5.59 (3.58 to 8.33)	74.32 (43.55 to 84.79)
T12 PR48 q8		3.12 (1.38 to 5.50)	33.40 (6.31 to 61.82)
SIM12 PR24-48 RGT		3.68 (1.67 to 6.25)	42.94 (11.03 to 69.35)
SIM12 PR48		2.76 (0.87 to 5.47)	27.67 (–2.10 to 62.62)
B32 PR36-48 RGT		2.55 (0.76 to 5.71)	24.42 (–3.98 to 60.65)
DCV24 + ASU24		5.44 (3.40 to 8.17)	71.02 (42.78 to 82.72)
DCV24 + ASU24 + PR24		5.68 (3.95 to 8.31)	74.65 (54.74 to 83.96)
SIM12 + SOF12		4.76 (1.65 to 7.70)	60.79 (10.54 to 83.22)
SOF12 + SIM12 + RBV12		4.73 (1.68 to 7.61)	60.83 (11.02 to 82.96)
SOF12 + PR12		2.56 (0.25 to 6.84)	24.47 (–12.16 to 78.78)
GRZ12 + ELB12 + RBV12		5.87 (4.15 to 8.53)	77.72 (59.55 to 85.35)
DCV12 + ASU12 + BEC12 + RBV12		5.94 (4.08 to 8.90)	79.07 (59.24 to 87.46)
DCV12 + ASU12 + BEC12		5.65 (3.47 to 8.68)	74.75 (46.00 to 86.39)
SOF24 + LDV24	SOF12 + LDV12	1.06 (0.39 to 1.77)	4.44 (–42.62 to 36.43)
SOF12 + LDV12 + RBV12		1.07 (0.81 to 1.66)	4.92 (–14.99 to 29.32)
SOF24 + LDV24 + RBV24		1.21 (0.85 to 2.10)	15.39 (–11.46 to 47.38)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8		0.69 (0.30 to 1.40)	–22.79 (–57.10 to 19.22)
SIM12 PR24-48 RGT		0.82 (0.36 to 1.55)	–13.27 (–51.17 to 25.64)
SIM12 PR48		0.61 (0.19 to 1.37)	–28.03 (–65.03 to 18.81)
B32 PR36-48 RGT		0.56 (0.17 to 1.26)	–31.24 (–67.27 to 12.96)
DCV24 + ASU24		1.18 (0.83 to 2.00)	12.92 (–13.81 to 43.26)
DCV24 + ASU24 + PR24		1.23 (0.89 to 2.21)	16.74 (–9.37 to 50.70)
SIM12 + SOF12		1.04 (0.37 to 1.99)	3.04 (–50.00 to 44.87)
SOF12 + SIM12 + RBV12		1.04 (0.37 to 1.94)	3.26 (–49.10 to 43.49)
SOF12 + PR12		0.57 (0.05 to 1.64)	–29.83 (–77.26 to 32.64)
GRZ12 + ELB12 + RBV12		1.27 (0.96 to 2.21)	19.60 (–3.76 to 51.53)
DCV12 + ASU12 + BEC12 + RBV12		1.29 (0.94 to 2.31)	21.30 (–5.56 to 54.63)
DCV12 + ASU12 + BEC12		1.23 (0.81 to 2.23)	16.75 (–16.16 to 51.71)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.73 to 2.58)	0.69 (–22.90 to 42.19)
SOF24 + LDV24 + RBV24		1.14 (0.77 to 3.31)	10.88 (–19.60 to 61.81)
T12 PR48 q8		0.66 (0.28 to 2.12)	–26.62 (–63.27 to 30.80)
SIM12 PR24-48 RGT		0.78 (0.34 to 2.33)	–16.83 (–57.04 to 37.35)
SIM12 PR48		0.58 (0.19 to 1.98)	–31.92 (–71.21 to 28.32)
B32 PR36-48 RGT		0.54 (0.17 to 1.69)	–34.69 (–72.55 to 22.26)
DCV24 + ASU24		1.11 (0.78 to 3.08)	8.51 (–19.32 to 56.43)
DCV24 + ASU24 + PR24		1.16 (0.83 to 3.53)	12.39 (–15.27 to 64.56)
SIM12 + SOF12		0.99 (0.35 to 2.93)	–1.00 (–53.90 to 55.07)
SOF12 + SIM12 + RBV12		0.99 (0.35 to 2.93)	–0.97 (–54.87 to 55.81)
SOF12 + PR12		0.56 (0.05 to 2.09)	–32.36 (–82.83 to 37.66)
GRZ12 + ELB12 + RBV12		1.19 (0.89 to 3.63)	15.04 (–9.72 to 67.53)
DCV12 + ASU12 + BEC12 + RBV12		1.21 (0.88 to 3.73)	16.38 (–10.94 to 68.64)
DCV12 + ASU12 + BEC12		1.15 (0.76 to 3.54)	11.85 (–20.92 to 65.27)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.14 (0.79 to 1.61)	11.08 (–16.49 to 34.99)
T12 PR48 q8		0.64 (0.29 to 1.17)	–28.06 (–59.32 to 9.77)
SIM12 PR24-48 RGT		0.76 (0.34 to 1.23)	–18.53 (–53.64 to 14.71)
SIM12 PR48		0.56 (0.18 to 1.16)	–33.92 (–67.20 to 9.98)
B32 PR36-48 RGT		0.53 (0.17 to 1.02)	–36.49 (–67.79 to 1.03)
DCV24 + ASU24		1.10 (0.83 to 1.47)	8.06 (–13.11 to 27.68)
DCV24 + ASU24 + PR24		1.15 (0.86 to 1.69)	12.00 (–11.96 to 38.10)
SIM12 + SOF12		0.99 (0.33 to 1.55)	–1.06 (–54.27 to 32.66)
SOF12 + SIM12 + RBV12		0.98 (0.35 to 1.56)	–1.41 (–52.21 to 32.90)
SOF12 + PR12		0.53 (0.05 to 1.35)	–35.90 (–79.29 to 22.44)
GRZ12 + ELB12 + RBV12		1.19 (0.92 to 1.75)	14.84 (–6.57 to 40.70)
DCV12 + ASU12 + BEC12 + RBV12		1.20 (0.91 to 1.78)	15.96 (–7.90 to 42.31)
DCV12 + ASU12 + BEC12		1.15 (0.78 to 1.73)	11.83 (–18.94 to 39.73)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.56 (0.25 to 1.01)	–39.46 (–69.73 to 0.56)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.67 (0.30 to 1.11)	–29.58 (–64.62 to 7.37)
SIM12 PR48		0.50 (0.16 to 0.99)	–44.65 (–77.46 to –0.96)
B32 PR36-48 RGT		0.46 (0.14 to 0.92)	–47.52 (–79.86 to –5.95)
DCV24 + ASU24		0.97 (0.68 to 1.43)	–3.06 (–29.16 to 26.51)
DCV24 + ASU24 + PR24		1.00 (0.77 to 1.54)	0.19 (–21.79 to 32.09)
SIM12 + SOF12		0.86 (0.30 to 1.38)	–12.98 (–62.79 to 24.93)
SOF12 + SIM12 + RBV12		0.87 (0.31 to 1.39)	–12.22 (–62.40 to 24.68)
SOF12 + PR12		0.46 (0.04 to 1.18)	–47.04 (–88.43 to 12.99)
GRZ12 + ELB12 + RBV12		1.03 (0.83 to 1.57)	2.93 (–15.84 to 34.57)
DCV12 + ASU12 + BEC12 + RBV12		1.05 (0.83 to 1.60)	4.22 (–15.87 to 35.90)
DCV12 + ASU12 + BEC12		1.00 (0.71 to 1.54)	0.04 (–27.34 to 32.89)
SIM12 PR24-48 RGT	T12 PR48 q8	1.19 (0.49 to 2.89)	9.48 (–33.18 to 48.84)
SIM12 PR48		0.89 (0.45 to 1.37)	–5.39 (–24.89 to 15.49)
B32 PR36-48 RGT		0.82 (0.23 to 2.31)	–8.52 (–50.34 to 37.10)
DCV24 + ASU24		1.74 (0.96 to 3.84)	36.67 (–3.10 to 66.42)
DCV24 + ASU24 + PR24		1.82 (1.11 to 3.99)	40.53 (7.72 to 69.13)
SIM12 + SOF12		1.50 (0.50 to 3.54)	25.59 (–29.25 to 64.29)
SOF12 + SIM12 + RBV12		1.50 (0.50 to 3.59)	25.42 (–30.62 to 64.45)
SOF12 + PR12		0.83 (0.08 to 2.79)	–8.29 (–57.06 to 53.91)
GRZ12 + ELB12 + RBV12		1.88 (1.14 to 4.11)	43.51 (10.47 to 71.28)
DCV12 + ASU12 + BEC12 + RBV12		1.90 (1.15 to 4.23)	44.58 (10.85 to 73.11)
DCV12 + ASU12 + BEC12		1.80 (0.99 to 4.04)	39.79 (–0.63 to 70.54)
SIM12 PR48	SIM12 PR24-48 RGT	0.74 (0.23 to 1.95)	–15.12 (–55.65 to 32.01)
B32 PR36-48 RGT		0.69 (0.20 to 1.92)	–18.06 (–59.18 to 30.23)
DCV24 + ASU24		1.45 (0.88 to 3.24)	26.66 (–9.15 to 61.94)
DCV24 + ASU24 + PR24		1.52 (1.00 to 3.36)	30.57 (–0.35 to 64.65)
SIM12 + SOF12		1.26 (0.43 to 2.88)	15.91 (–37.54 to 57.39)
SOF12 + SIM12 + RBV12		1.27 (0.45 to 2.89)	16.52 (–37.28 to 57.15)
SOF12 + PR12		0.70 (0.07 to 2.27)	–16.66 (–66.61 to 45.89)
GRZ12 + ELB12 + RBV12		1.57 (1.03 to 3.45)	33.64 (2.67 to 66.52)
DCV12 + ASU12 + BEC12 + RBV12		1.59 (1.04 to 3.56)	34.96 (3.29 to 68.84)
DCV12 + ASU12 + BEC12		1.51 (0.91 to 3.42)	30.05 (–7.22 to 66.11)
B32 PR36-48 RGT	SIM12 PR48	0.93 (0.25 to 3.37)	–2.97 (–49.70 to 44.13)
DCV24 + ASU24		1.96 (0.97 to 6.08)	42.00 (–1.95 to 74.35)
DCV24 + ASU24 + PR24		2.05 (1.10 to 6.33)	45.83 (7.58 to 77.08)
SIM12 + SOF12		1.68 (0.54 to 5.60)	30.61 (–26.28 to 72.84)
SOF12 + SIM12 + RBV12		1.67 (0.53 to 5.64)	30.23 (–28.39 to 73.08)
SOF12 + PR12		0.94 (0.09 to 4.06)	–2.43 (–55.11 to 62.26)
GRZ12 + ELB12 + RBV12		2.13 (1.13 to 6.57)	49.01 (10.19 to 79.54)
DCV12 + ASU12 + BEC12 + RBV12		2.15 (1.15 to 6.72)	50.11 (11.01 to 81.53)
DCV12 + ASU12 + BEC12		2.04 (1.02 to 6.40)	45.35 (1.45 to 78.74)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24	B32 PR36-48 RGT	2.10 (1.17 to 6.23)	44.39 (11.54 to 72.79)
DCV24 + ASU24 + PR24		2.22 (1.14 to 7.13)	49.05 (10.00 to 79.61)
SIM12 + SOF12		1.83 (0.57 to 5.91)	34.38 (–23.42 to 72.74)
SOF12 + SIM12 + RBV12		1.81 (0.57 to 6.19)	33.34 (–24.38 to 75.91)
SOF12 + PR12		1.03 (0.09 to 4.12)	1.23 (–54.25 to 61.42)
GRZ12 + ELB12 + RBV12		2.30 (1.19 to 7.29)	52.31 (13.98 to 81.24)
DCV12 + ASU12 + BEC12 + RBV12		2.32 (1.22 to 7.46)	53.42 (15.59 to 83.54)
DCV12 + ASU12 + BEC12		2.18 (1.10 to 7.16)	47.94 (6.76 to 81.10)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.04 (0.79 to 1.54)	3.62 (–19.12 to 32.36)
SIM12 + SOF12		0.90 (0.31 to 1.40)	–9.03 (–61.51 to 25.42)
SOF12 + SIM12 + RBV12		0.89 (0.31 to 1.38)	–9.61 (–60.46 to 24.93)
SOF12 + PR12		0.48 (0.05 to 1.20)	–44.15 (–86.05 to 14.10)
GRZ12 + ELB12 + RBV12		1.07 (0.85 to 1.58)	6.21 (–13.93 to 34.54)
DCV12 + ASU12 + BEC12 + RBV12		1.09 (0.84 to 1.61)	7.53 (–14.59 to 36.21)
DCV12 + ASU12 + BEC12		1.04 (0.72 to 1.54)	3.55 (–25.50 to 32.84)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.86 (0.29 to 1.20)	–12.97 (–64.14 to 14.87)
SOF12 + SIM12 + RBV12		0.85 (0.30 to 1.20)	–13.33 (–63.45 to 15.27)
SOF12 + PR12		0.46 (0.04 to 1.07)	–48.19 (–88.30 to 5.56)
GRZ12 + ELB12 + RBV12		1.03 (0.82 to 1.32)	2.90 (–16.47 to 23.07)
DCV12 + ASU12 + BEC12 + RBV12		1.04 (0.83 to 1.36)	3.76 (–15.87 to 25.44)
DCV12 + ASU12 + BEC12		1.00 (0.69 to 1.31)	0.08 (–28.32 to 22.61)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	1.00 (0.36 to 2.59)	0.24 (–52.56 to 49.84)
SOF12 + PR12		0.56 (0.10 to 1.03)	–28.59 (–63.56 to 2.12)
GRZ12 + ELB12 + RBV12		1.21 (0.88 to 3.46)	16.03 (–11.39 to 66.16)
DCV12 + ASU12 + BEC12 + RBV12		1.22 (0.88 to 3.59)	17.23 (–10.92 to 68.28)
DCV12 + ASU12 + BEC12		1.16 (0.76 to 3.38)	12.67 (–21.55 to 64.41)
SOF12 + PR12	SOF12 + SIM12 + RBV12	0.57 (0.06 to 1.94)	–30.03 (–80.42 to 36.61)
GRZ12 + ELB12 + RBV12		1.21 (0.89 to 3.40)	15.97 (–10.43 to 65.64)
DCV12 + ASU12 + BEC12 + RBV12		1.23 (0.88 to 3.54)	17.32 (–11.14 to 68.67)
DCV12 + ASU12 + BEC12		1.17 (0.75 to 3.39)	12.98 (–22.86 to 65.62)
GRZ12 + ELB12 + RBV12	SOF12 + PR12	2.28 (0.96 to 23.51)	51.36 (–3.52 to 90.53)
DCV12 + ASU12 + BEC12 + RBV12		2.33 (0.98 to 23.78)	53.29 (–1.45 to 91.50)
DCV12 + ASU12 + BEC12		2.19 (0.89 to 22.13)	47.55 (–10.17 to 89.29)
DCV12 + ASU12 + BEC12 + RBV12	GRZ12 + ELB12 + RBV12	1.01 (0.81 to 1.27)	1.28 (–17.67 to 20.14)
DCV12 + ASU12 + BEC12		0.97 (0.68 to 1.22)	–2.71 (–30.67 to 17.12)
DCV12 + ASU12 + BEC12	DCV12 + ASU12 + BEC12 + RBV12	0.96 (0.73 to 1.08)	–3.55 (–24.13 to 6.66)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
Random effect model	Residual deviance	34.78 vs. 36 data points	
	Deviance information criteria	167.614	
Fixed effect model	Residual deviance	35.12 vs. 36 data points	
	Deviance information criteria	167.96	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 166: GENOTYPE 1 WITHOUT CIRRHOSIS TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	1.28 (0.09 to 3.66)	6.89 (–22.54 to 64.98)
SOF12 + LDV12		3.69 (3.13 to 4.27)	66.89 (55.09 to 73.43)
SOF12 + LDV12 + RBV12		3.93 (3.49 to 4.46)	72.43 (68.17 to 75.96)
SOF24 + LDV24 + RBV24		3.91 (3.42 to 4.46)	72.43 (63.83 to 76.46)
T12 PR48 q8		3.12 (2.47 to 3.71)	52.69 (37.60 to 62.18)
SIM12 PR24-48 RGT		2.65 (1.91 to 3.30)	40.93 (22.56 to 54.35)
SIM12 PR48		3.13 (2.23 to 3.79)	53.04 (30.88 to 64.65)
SOF12 + SIM12 + RBV12		2.50 (0.51 to 4.02)	37.17 (–11.95 to 71.68)
B32 PR36-48 RGT		2.61 (1.76 to 3.41)	39.93 (19.30 to 56.60)
SOF12 + RBV12		0.49 (0.04 to 1.96)	–12.44 (–24.26 to 23.50)
PAR/RIT12 + OMB12 + DAS12		3.90 (3.36 to 4.46)	72.11 (61.88 to 76.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.97 (3.52 to 4.51)	73.50 (69.21 to 76.76)
DCV24 + ASU24		3.15 (2.52 to 3.76)	53.44 (38.90 to 63.49)
DCV24 + ASU24 + PR24		3.50 (2.75 to 4.09)	62.34 (44.43 to 70.39)
SOF12 + PR12		3.19 (2.36 to 3.88)	54.41 (34.76 to 66.53)
GRZ12 + ELB12 + RBV12		3.95 (3.47 to 4.50)	73.18 (66.51 to 76.87)
DCV12 + ASU12 + BEC12		3.59 (2.96 to 4.18)	64.36 (50.66 to 71.74)
SOF12 + LDV12	SIM12 + SOF12	2.86 (1.01 to 41.56)	58.78 (0.60 to 90.74)
SOF12 + LDV12 + RBV12		3.06 (1.08 to 44.26)	65.30 (7.05 to 94.62)
SOF24 + LDV24 + RBV24		3.05 (1.06 to 44.43)	64.82 (5.56 to 95.36)
T12 PR48 q8		2.40 (0.84 to 34.29)	44.38 (–14.20 to 76.94)
SIM12 PR24-48 RGT		2.07 (0.70 to 28.09)	33.39 (–25.61 to 66.84)
SIM12 PR48		2.38 (0.82 to 34.45)	43.78 (–15.73 to 78.63)
SOF12 + SIM12 + RBV12		1.78 (0.70 to 10.43)	21.60 (–17.56 to 60.18)
B32 PR36-48 RGT		1.97 (0.67 to 29.76)	30.74 (–27.86 to 69.65)
SOF12 + RBV12		0.40 (0.03 to 6.96)	–17.12 (–78.85 to 29.32)
PAR/RIT12 + OMB12 + DAS12		3.03 (1.07 to 43.66)	64.21 (6.46 to 94.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.09 (1.09 to 44.80)	66.24 (8.37 to 95.85)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		2.42 (0.83 to 34.83)	45.00 (–14.80 to 79.03)
DCV24 + ASU24 + PR24		2.71 (0.96 to 37.43)	53.82 (–3.64 to 85.23)
SOF12 + PR12		2.46 (0.83 to 35.53)	45.74 (–14.44 to 81.72)
GRZ12 + ELB12 + RBV12		3.08 (1.08 to 44.53)	65.90 (7.32 to 95.66)
DCV12 + ASU12 + BEC12		2.77 (0.96 to 39.92)	55.96 (–3.25 to 88.43)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	1.06 (0.99 to 1.21)	5.35 (–0.57 to 16.86)
SOF24 + LDV24 + RBV24		1.06 (0.96 to 1.21)	5.25 (–3.77 to 16.76)
T12 PR48 q8		0.85 (0.69 to 1.01)	–14.12 (–29.35 to 0.43)
SIM12 PR24-48 RGT		0.72 (0.52 to 0.90)	–25.75 (–44.38 to –8.41)
SIM12 PR48		0.85 (0.61 to 1.03)	–13.80 (–35.48 to 2.10)
SOF12 + SIM12 + RBV12		0.68 (0.14 to 1.08)	–29.18 (–79.76 to 6.59)
B32 PR36-48 RGT		0.71 (0.48 to 0.92)	–26.59 (–47.60 to –7.29)
SOF12 + RBV12		0.13 (0.01 to 0.53)	–78.42 (–93.11 to –41.83)
PAR/RIT12 + OMB12 + DAS12		1.05 (0.94 to 1.21)	4.86 (–6.05 to 17.24)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.07 (1.00 to 1.23)	6.45 (0.25 to 18.12)
DCV24 + ASU24		0.86 (0.70 to 1.02)	–13.21 (–28.25 to 1.55)
DCV24 + ASU24 + PR24		0.95 (0.76 to 1.11)	–4.61 (–22.73 to 9.01)
SOF12 + PR12		0.87 (0.65 to 1.04)	–12.11 (–32.66 to 3.33)
GRZ12 + ELB12 + RBV12		1.07 (0.98 to 1.23)	6.03 (–2.02 to 18.13)
DCV12 + ASU12 + BEC12		0.97 (0.82 to 1.13)	–2.56 (–16.65 to 10.32)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.92 to 1.04)	0.09 (–8.18 to 4.22)
T12 PR48 q8		0.80 (0.65 to 0.89)	–19.57 (–34.02 to –10.73)
SIM12 PR24-48 RGT		0.68 (0.49 to 0.82)	–31.44 (–49.41 to –17.80)
SIM12 PR48		0.80 (0.58 to 0.92)	–19.27 (–40.86 to –8.09)
SOF12 + SIM12 + RBV12		0.64 (0.13 to 0.99)	–35.26 (–83.76 to –1.18)
B32 PR36-48 RGT		0.67 (0.46 to 0.84)	–32.37 (–52.97 to –15.80)
SOF12 + RBV12		0.13 (0.01 to 0.50)	–84.87 (–96.63 to –48.62)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.89 to 1.05)	–0.15 (–10.55 to 4.24)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.98 to 1.05)	1.00 (–2.27 to 4.31)
DCV24 + ASU24		0.81 (0.66 to 0.90)	–18.78 (–32.67 to –9.68)
DCV24 + ASU24 + PR24		0.90 (0.71 to 0.98)	–10.02 (–27.69 to –1.99)
SOF12 + PR12		0.82 (0.62 to 0.94)	–17.93 (–37.41 to –5.92)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.05)	0.77 (–5.62 to 4.65)
DCV12 + ASU12 + BEC12		0.92 (0.78 to 0.99)	–8.00 (–21.45 to –0.63)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.80 (0.65 to 0.91)	–19.47 (–34.24 to –8.05)
SIM12 PR24-48 RGT		0.68 (0.49 to 0.83)	–31.09 (–49.48 to –16.34)
SIM12 PR48		0.80 (0.58 to 0.94)	–19.08 (–40.49 to –6.04)
SOF12 + SIM12 + RBV12		0.64 (0.13 to 1.00)	–34.78 (–84.45 to 0.15)
B32 PR36-48 RGT		0.67 (0.46 to 0.85)	–32.01 (–52.68 to –14.18)
SOF12 + RBV12		0.13 (0.01 to 0.50)	–84.05 (–97.03 to –47.91)
PAR/RIT12 + OMB12 + DAS12		1.00 (0.89 to 1.09)	–0.11 (–10.65 to 8.08)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.97 to 1.11)	0.88 (–2.94 to 9.38)
DCV24 + ASU24		0.81 (0.66 to 0.92)	–18.45 (–33.13 to –6.95)
DCV24 + ASU24 + PR24		0.90 (0.72 to 1.01)	–9.71 (–27.70 to 0.62)
SOF12 + PR12		0.82 (0.62 to 0.96)	–17.55 (–37.46 to –3.81)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.10)	0.64 (–5.74 to 9.23)
DCV12 + ASU12 + BEC12		0.92 (0.78 to 1.03)	–7.92 (–21.12 to 2.68)
SIM12 PR24-48 RGT	T12 PR48 q8	0.85 (0.62 to 1.11)	–11.71 (–30.94 to 7.10)
SIM12 PR48		1.00 (0.81 to 1.13)	0.22 (–13.61 to 9.59)
SOF12 + SIM12 + RBV12		0.80 (0.17 to 1.30)	–15.36 (–65.13 to 21.28)
B32 PR36-48 RGT		0.84 (0.56 to 1.13)	–12.47 (–35.16 to 8.98)
SOF12 + RBV12		0.16 (0.01 to 0.64)	–64.14 (–80.93 to –27.23)
PAR/RIT12 + OMB12 + DAS12		1.25 (1.07 to 1.54)	19.17 (6.21 to 33.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.27 (1.14 to 1.54)	20.75 (12.43 to 33.67)
DCV24 + ASU24		1.01 (0.84 to 1.21)	0.79 (–12.58 to 14.23)
DCV24 + ASU24 + PR24		1.12 (0.88 to 1.39)	9.48 (–9.32 to 25.38)
SOF12 + PR12		1.02 (0.75 to 1.31)	1.85 (–20.04 to 20.30)
GRZ12 + ELB12 + RBV12		1.26 (1.11 to 1.56)	20.23 (9.63 to 34.96)
DCV12 + ASU12 + BEC12		1.15 (0.95 to 1.43)	11.42 (–4.18 to 27.51)
SIM12 PR48	SIM12 PR24-48 RGT	1.18 (0.83 to 1.64)	11.90 (–12.08 to 32.52)
SOF12 + SIM12 + RBV12		0.94 (0.21 to 1.58)	–3.86 (–52.31 to 33.62)
B32 PR36-48 RGT		0.98 (0.65 to 1.46)	–1.04 (–25.24 to 23.69)
SOF12 + RBV12		0.19 (0.02 to 0.78)	–51.87 (–72.24 to –12.57)
PAR/RIT12 + OMB12 + DAS12		1.46 (1.23 to 1.97)	30.55 (17.83 to 46.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.49 (1.24 to 2.06)	32.48 (18.72 to 50.26)
DCV24 + ASU24		1.19 (0.91 to 1.66)	12.60 (–6.99 to 32.35)
DCV24 + ASU24 + PR24		1.31 (1.12 to 1.65)	20.66 (8.70 to 33.37)
SOF12 + PR12		1.20 (0.86 to 1.71)	13.33 (–10.24 to 35.18)
GRZ12 + ELB12 + RBV12		1.49 (1.23 to 2.06)	31.91 (17.65 to 50.32)
DCV12 + ASU12 + BEC12		1.35 (1.06 to 1.88)	23.13 (4.78 to 42.60)
SOF12 + SIM12 + RBV12	SIM12 PR48	0.80 (0.17 to 1.36)	–15.36 (–65.87 to 23.73)
B32 PR36-48 RGT		0.84 (0.56 to 1.22)	–12.63 (–36.13 to 13.28)
SOF12 + RBV12		0.16 (0.01 to 0.65)	–63.66 (–82.67 to –25.16)
PAR/RIT12 + OMB12 + DAS12		1.24 (1.05 to 1.72)	18.76 (4.27 to 40.49)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.26 (1.11 to 1.73)	20.40 (9.69 to 40.60)
DCV24 + ASU24		1.01 (0.82 to 1.36)	0.67 (–14.84 to 20.69)
DCV24 + ASU24 + PR24		1.12 (0.87 to 1.53)	9.18 (–10.74 to 30.69)
SOF12 + PR12		1.02 (0.74 to 1.43)	1.64 (–21.36 to 24.96)
GRZ12 + ELB12 + RBV12		1.26 (1.08 to 1.74)	19.93 (7.36 to 41.54)
DCV12 + ASU12 + BEC12		1.14 (0.93 to 1.59)	11.15 (–5.88 to 33.18)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B32 PR36-48 RGT	SOF12 + SIM12 + RBV12	1.04 (0.57 to 5.09)	2.43 (–38.22 to 55.85)
SOF12 + RBV12		0.22 (0.02 to 1.53)	–46.00 (–87.70 to 11.89)
PAR/RIT12 + OMB12 + DAS12		1.55 (1.01 to 7.58)	34.24 (0.61 to 83.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.59 (1.02 to 7.71)	36.24 (2.14 to 85.30)
DCV24 + ASU24		1.26 (0.77 to 6.04)	16.33 (–21.64 to 65.81)
DCV24 + ASU24 + PR24		1.39 (0.90 to 6.45)	24.35 (–9.22 to 71.43)
SOF12 + PR12		1.27 (0.74 to 6.01)	17.07 (–23.98 to 67.96)
GRZ12 + ELB12 + RBV12		1.58 (1.01 to 7.71)	35.83 (1.21 to 85.27)
DCV12 + ASU12 + BEC12		1.43 (0.89 to 6.90)	26.71 (–9.86 to 76.16)
SOF12 + RBV12	B32 PR36-48 RGT	0.19 (0.02 to 0.80)	–50.71 (–72.89 to –11.12)
PAR/RIT12 + OMB12 + DAS12		1.49 (1.16 to 2.18)	31.67 (13.01 to 52.49)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.52 (1.21 to 2.21)	33.44 (16.76 to 53.70)
DCV24 + ASU24		1.21 (0.88 to 1.79)	13.49 (–8.88 to 36.25)
DCV24 + ASU24 + PR24		1.34 (0.98 to 1.96)	21.87 (–1.13 to 43.74)
SOF12 + PR12		1.22 (0.85 to 1.83)	14.06 (–11.43 to 38.18)
GRZ12 + ELB12 + RBV12		1.51 (1.20 to 2.21)	32.93 (15.62 to 53.53)
DCV12 + ASU12 + BEC12		1.37 (1.04 to 2.03)	24.00 (3.13 to 45.94)
PAR/RIT12 + OMB12 + DAS12	SOF12 + RBV12	7.89 (1.97 to 93.36)	83.75 (46.52 to 96.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		8.05 (2.03 to 94.76)	85.88 (49.70 to 97.43)
DCV24 + ASU24		6.35 (1.61 to 76.71)	64.81 (28.58 to 82.06)
DCV24 + ASU24 + PR24		7.03 (1.74 to 84.65)	73.21 (34.66 to 90.00)
SOF12 + PR12		6.41 (1.54 to 76.58)	65.25 (24.92 to 85.28)
GRZ12 + ELB12 + RBV12		8.01 (2.01 to 94.33)	85.22 (48.74 to 97.44)
DCV12 + ASU12 + BEC12		7.25 (1.81 to 86.58)	75.77 (38.38 to 91.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.01 (0.97 to 1.13)	1.13 (–2.80 to 11.39)
DCV24 + ASU24		0.81 (0.66 to 0.94)	–18.09 (–33.13 to –5.21)
DCV24 + ASU24 + PR24		0.90 (0.73 to 1.01)	–9.36 (–26.10 to 0.67)
SOF12 + PR12		0.82 (0.62 to 0.97)	–17.23 (–36.75 to –2.98)
GRZ12 + ELB12 + RBV12		1.01 (0.94 to 1.13)	0.88 (–5.63 to 11.24)
DCV12 + ASU12 + BEC12		0.92 (0.78 to 1.04)	–7.55 (–21.01 to 3.72)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.80 (0.66 to 0.89)	–19.86 (–33.56 to –10.44)
DCV24 + ASU24 + PR24		0.89 (0.71 to 0.97)	–11.03 (–28.40 to –2.80)
SOF12 + PR12		0.81 (0.61 to 0.93)	–19.00 (–38.31 to –7.01)
GRZ12 + ELB12 + RBV12		1.00 (0.93 to 1.03)	–0.13 (–6.49 to 3.23)
DCV12 + ASU12 + BEC12		0.91 (0.77 to 0.98)	–9.03 (–22.32 to –1.80)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.11 (0.87 to 1.38)	8.61 (–10.40 to 24.91)
SOF12 + PR12		1.01 (0.74 to 1.29)	0.87 (–21.25 to 19.48)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 + RBV12		1.25 (1.10 to 1.53)	19.39 (8.74 to 34.04)
DCV12 + ASU12 + BEC12		1.13 (0.94 to 1.41)	10.50 (–5.25 to 26.62)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.91 (0.68 to 1.18)	–7.65 (–28.52 to 13.07)
GRZ12 + ELB12 + RBV12		1.12 (1.02 to 1.41)	10.54 (1.46 to 28.48)
DCV12 + ASU12 + BEC12		1.02 (0.86 to 1.29)	1.98 (–12.75 to 20.37)
GRZ12 + ELB12 + RBV12	SOF12 + PR12	1.23 (1.07 to 1.63)	18.54 (5.92 to 37.88)
DCV12 + ASU12 + BEC12		1.12 (0.91 to 1.50)	9.64 (–7.59 to 30.11)
DCV12 + ASU12 + BEC12	GRZ12 + ELB12 + RBV12	0.91 (0.78 to 1.00)	–8.68 (–21.96 to 0.23)
Random effect model	Residual deviance	39.06 vs. 44 data points	
	Deviance information criteria	243.037	
Fixed effect model	Residual deviance	39.18 vs. 44 data points	
	Deviance information criteria	242.775	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Harms

TABLE 167: ANEMIA TREATMENT-NAIVE WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.71 (0.37 to 1.32)	–6.05 (–13.62 to 6.41)
SOF24 + RBV24		1.31 (0.52 to 2.57)	6.30 (–10.24 to 31.78)
SOF12 + LDV12		0.05 (0.02 to 0.13)	–19.53 (–22.72 to –16.31)
SOF8 + LDV8 + RBV8		0.34 (0.08 to 1.42)	–13.36 (–20.03 to 8.67)
SOF12 + LDV12 + RBV12		0.66 (0.35 to 1.21)	–6.92 (–14.09 to 4.28)
SOF24 + LDV24 + RBV24		0.58 (0.29 to 1.11)	–8.69 (–15.34 to 2.15)
T12 PR24-48 RGT q8		1.89 (1.33 to 2.52)	18.38 (6.82 to 30.63)
T12 PR24-48 RGT q12		2.08 (1.38 to 2.91)	22.31 (7.91 to 38.54)
T12 PR48 q8		1.19 (0.51 to 2.45)	3.89 (–10.56 to 29.05)
SOF12 + PR12		1.48 (0.82 to 2.42)	9.94 (–3.73 to 28.83)
SOF12 PR24-48 RGT		0.85 (0.39 to 1.75)	–3.02 (–13.21 to 14.51)
SIM12 PR24-48 RGT		0.82 (0.59 to 1.12)	–3.64 (–8.72 to 2.45)
B24 PR28-48 RGT		1.83 (1.27 to 2.45)	17.23 (5.57 to 29.69)
B44 PR48		1.58 (0.74 to 2.86)	12.00 (–5.53 to 37.15)
PR24		1.00 (0.40 to 2.09)	–0.08 (–12.85 to 22.27)
SOF24 + RBV (low dose) 24		0.86 (0.35 to 1.74)	–2.97 (–13.81 to 14.97)
PAR/RIT12 + OMB12 + DAS12		0.34 (0.15 to 0.74)	–13.50 (–18.37 to –5.35)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.39 (0.17 to 0.87)	–12.61 (–18.26 to –2.68)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + SOF12		0.09 (0.00 to 1.01)	–18.32 (–22.60 to 0.18)
GRZ12 + ELB12		0.16 (0.05 to 0.52)	–17.32 (–21.57 to –9.34)
GRZ12 + ELB12 + RBV12		0.69 (0.23 to 1.99)	–6.46 (–16.71 to 19.67)
GRZ12 + ELB12 (50 mg q.d.)		0.09 (0.01 to 0.73)	–18.48 (–22.57 to –5.37)
GRZ18 + ELB18 (50 mg q.d.)		0.08 (0.00 to 1.50)	–18.49 (–22.77 to 10.43)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.23 (0.02 to 1.84)	–15.85 (–21.88 to 17.31)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.93 (0.08 to 3.90)	–1.39 (–19.68 to 59.98)
SOF24 + RBV24	SOF12 + RBV12	1.83 (0.72 to 4.42)	11.97 (–5.62 to 37.55)
SOF12 + LDV12		0.07 (0.03 to 0.20)	–13.41 (–25.79 to –6.39)
SOF8 + LDV8 + RBV8		0.50 (0.11 to 2.11)	–6.90 (–20.58 to 14.06)
SOF12 + LDV12 + RBV12		0.95 (0.40 to 2.16)	–0.72 (–13.85 to 11.41)
SOF24 + LDV24 + RBV24		0.82 (0.33 to 2.02)	–2.47 (–15.57 to 9.99)
T12 PR24-48 RGT q8		2.67 (1.31 to 5.47)	24.34 (7.44 to 38.81)
T12 PR24-48 RGT q12		2.94 (1.41 to 6.13)	28.24 (9.47 to 46.31)
T12 PR48 q8		1.70 (0.59 to 4.42)	9.89 (–9.04 to 34.88)
SOF12 + PR12		2.11 (1.08 to 4.04)	15.80 (1.61 to 32.93)
SOF12 PR24-48 RGT		1.23 (0.44 to 3.22)	3.18 (–12.75 to 21.38)
SIM12 PR24-48 RGT		1.17 (0.58 to 2.34)	2.45 (–10.52 to 11.29)
B24 PR28-48 RGT		2.60 (1.25 to 5.34)	23.15 (5.94 to 37.76)
B44 PR48		2.20 (0.87 to 5.54)	17.75 (–2.70 to 43.56)
PR24		1.41 (0.76 to 2.43)	5.79 (–3.54 to 21.76)
SOF24 + RBV (low dose) 24		1.20 (0.52 to 2.72)	2.91 (–9.78 to 19.80)
PAR/RIT12 + OMB12 + DAS12		0.49 (0.17 to 1.34)	–7.41 (–20.28 to 3.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.56 (0.19 to 1.55)	–6.22 (–19.91 to 5.22)
DCV12 + SOF12		0.14 (0.01 to 1.60)	–11.51 (–24.76 to 6.50)
GRZ12 + ELB12		0.22 (0.06 to 0.85)	–11.04 (–24.01 to –1.48)
GRZ12 + ELB12 + RBV12		0.96 (0.27 to 3.68)	–0.55 (–16.62 to 27.24)
GRZ12 + ELB12 (50 mg q.d.)		0.13 (0.01 to 1.21)	–12.16 (–24.77 to 2.21)
GRZ18 + ELB18 (50 mg q.d.)		0.12 (0.00 to 2.27)	–11.87 (–24.72 to 16.81)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.33 (0.02 to 2.88)	–9.11 (–22.46 to 23.40)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.35 (0.10 to 6.71)	4.95 (–18.06 to 64.85)
SOF12 + LDV12	SOF24 + RBV24	0.04 (0.01 to 0.13)	–25.86 (–51.42 to –9.58)
SOF8 + LDV8 + RBV8		0.27 (0.05 to 1.47)	–18.86 (–44.39 to 7.44)
SOF12 + LDV12 + RBV12		0.51 (0.21 to 1.35)	–13.00 (–38.22 to 4.68)
SOF24 + LDV24 + RBV24		0.45 (0.17 to 1.22)	–14.75 (–40.47 to 2.93)
T12 PR24-48 RGT q8		1.45 (0.67 to 3.76)	12.06 (–16.32 to 32.81)
T12 PR24-48 RGT q12		1.60 (0.71 to 4.23)	16.01 (–14.07 to 39.32)
T12 PR48 q8		0.93 (0.30 to 3.05)	–1.91 (–32.57 to 27.73)
SOF12 + PR12		1.14 (0.49 to 2.91)	3.77 (–23.89 to 27.15)
SOF12 PR24-48 RGT		0.67 (0.23 to 2.01)	–8.78 (–37.53 to 14.16)
SIM12 PR24-48 RGT		0.63 (0.30 to 1.64)	–9.86 (–35.74 to 7.21)
B24 PR28-48 RGT		1.40 (0.65 to 3.77)	10.66 (–17.12 to 31.99)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B44 PR48		1.20 (0.44 to 3.72)	5.23 (–25.12 to 36.21)
PR24		0.77 (0.27 to 2.27)	–5.94 (–33.33 to 19.94)
SOF24 + RBV (low dose) 24		0.66 (0.33 to 1.34)	–8.82 (–28.56 to 5.54)
PAR/RIT12 + OMB12 + DAS12		0.26 (0.09 to 0.88)	–19.74 (–45.62 to –1.43)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.30 (0.10 to 1.00)	–18.86 (–44.73 to –0.04)
DCV12 + SOF12		0.08 (0.00 to 1.09)	–23.89 (–48.97 to 1.47)
GRZ12 + ELB12		0.12 (0.03 to 0.56)	–23.39 (–49.14 to –5.33)
GRZ12 + ELB12 + RBV12		0.53 (0.14 to 2.19)	–12.25 (–40.66 to 19.16)
GRZ12 + ELB12 (50 mg q.d.)		0.08 (0.00 to 0.76)	–24.20 (–50.69 to –3.58)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 1.23)	–23.46 (–50.15 to 4.41)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.18 (0.01 to 1.78)	–20.12 (–48.35 to 14.45)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.75 (0.05 to 4.08)	–6.39 (–42.12 to 54.48)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	6.62 (2.31 to 22.31)	5.93 (1.03 to 27.55)
SOF12 + LDV12 + RBV12		12.57 (4.95 to 37.77)	12.57 (6.09 to 23.66)
SOF24 + LDV24 + RBV24		10.86 (4.19 to 33.51)	10.72 (4.85 to 21.48)
T12 PR24-48 RGT q8		35.97 (14.02 to 98.96)	37.93 (25.82 to 50.73)
T12 PR24-48 RGT q12		39.47 (15.28 to 111.60)	41.91 (27.07 to 58.41)
T12 PR48 q8		22.83 (7.50 to 68.42)	23.46 (9.50 to 48.02)
SOF12 + PR12		28.14 (12.69 to 71.60)	29.43 (16.25 to 48.10)
SOF12 PR24-48 RGT		16.35 (5.15 to 54.29)	16.58 (7.04 to 33.26)
SIM12 PR24-48 RGT		15.80 (6.31 to 43.32)	15.88 (10.73 to 22.15)
B24 PR28-48 RGT		34.88 (13.61 to 96.00)	36.75 (24.58 to 49.77)
B44 PR48		29.69 (9.59 to 97.51)	31.45 (14.14 to 56.36)
PR24		18.77 (6.28 to 60.17)	19.35 (7.25 to 41.78)
SOF24 + RBV (low dose) 24		16.20 (5.41 to 53.93)	16.46 (6.32 to 34.47)
PAR/RIT12 + OMB12 + DAS12		6.55 (1.86 to 22.57)	5.97 (1.54 to 14.21)
PAR/RIT12 + OMB12 + DAS12 + RBV12		7.48 (2.73 to 22.52)	6.83 (2.42 to 16.13)
DCV12 + SOF12		1.95 (0.08 to 23.02)	0.90 (–1.62 to 19.42)
GRZ12 + ELB12		3.00 (0.70 to 13.65)	2.11 (–0.53 to 9.26)
GRZ12 + ELB12 + RBV12		12.95 (3.56 to 57.86)	12.98 (3.71 to 38.25)
GRZ12 + ELB12 (50 mg q.d.)		1.83 (0.15 to 16.06)	0.84 (–1.44 to 13.36)
GRZ18 + ELB18 (50 mg q.d.)		1.64 (0.03 to 37.67)	0.63 (–1.90 to 30.65)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		4.20 (0.33 to 48.82)	3.47 (–1.05 to 37.05)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		17.77 (1.36 to 114.00)	18.15 (0.44 to 79.32)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.92 (0.43 to 8.73)	6.09 (–15.59 to 18.57)
SOF24 + LDV24 + RBV24		1.66 (0.37 to 7.74)	4.45 (–17.23 to 16.55)
T12 PR24-48 RGT q8		5.42 (1.30 to 23.69)	31.15 (8.06 to 45.89)
T12 PR24-48 RGT q12		5.98 (1.40 to 26.61)	34.88 (10.74 to 53.52)
T12 PR48 q8		3.46 (0.71 to 15.74)	16.56 (–6.96 to 41.12)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12		4.23 (1.00 to 17.46)	22.19 (–0.07 to 41.23)
SOF12 PR24-48 RGT		2.47 (0.49 to 12.43)	9.87 (–13.07 to 27.96)
SIM12 PR24-48 RGT		2.39 (0.56 to 10.45)	9.53 (–12.43 to 18.58)
B24 PR28-48 RGT		5.31 (1.24 to 23.40)	29.89 (6.61 to 44.91)
B44 PR48		4.41 (1.00 to 22.22)	24.08 (–0.02 to 51.17)
PR24		2.81 (0.57 to 13.86)	12.45 (–10.06 to 36.32)
SOF24 + RBV (low dose) 24		2.39 (0.51 to 11.95)	9.62 (–11.48 to 28.90)
PAR/RIT12 + OMB12 + DAS12		0.98 (0.20 to 5.16)	–0.12 (–21.95 to 9.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.11 (0.23 to 5.32)	0.73 (–20.68 to 11.12)
DCV12 + SOF12		0.29 (0.01 to 3.93)	–4.38 (–26.15 to 13.41)
GRZ12 + ELB12		0.46 (0.08 to 2.84)	–3.64 (–25.39 to 4.95)
GRZ12 + ELB12 + RBV12		1.96 (0.37 to 11.74)	6.47 (–15.30 to 32.14)
GRZ12 + ELB12 (50 mg q.d.)		0.29 (0.02 to 2.69)	–4.52 (–25.75 to 6.86)
GRZ18 + ELB18 (50 mg q.d.)		0.25 (0.00 to 5.44)	–4.55 (–25.25 to 23.56)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.63 (0.04 to 8.80)	–2.25 (–24.00 to 30.85)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.50 (0.12 to 25.22)	10.89 (–16.59 to 70.87)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	0.87 (0.47 to 1.63)	–1.76 (–10.36 to 6.86)
T12 PR24-48 RGT q8		2.85 (1.41 to 5.75)	25.18 (9.11 to 39.71)
T12 PR24-48 RGT q12		3.13 (1.53 to 6.52)	29.05 (11.08 to 46.96)
T12 PR48 q8		1.80 (0.63 to 4.61)	10.75 (–7.35 to 36.37)
SOF12 + PR12		2.24 (1.01 to 4.90)	16.68 (0.17 to 35.92)
SOF12 PR24-48 RGT		1.29 (0.49 to 3.41)	3.89 (–10.96 to 22.14)
SIM12 PR24-48 RGT		1.24 (0.62 to 2.56)	3.23 (–8.85 to 12.47)
B24 PR28-48 RGT		2.76 (1.37 to 5.59)	23.88 (8.09 to 38.50)
B44 PR48		2.37 (0.90 to 5.97)	18.64 (–1.96 to 44.95)
PR24		1.50 (0.54 to 3.96)	6.67 (–8.86 to 29.21)
SOF24 + RBV (low dose) 24		1.29 (0.52 to 2.94)	3.92 (–9.17 to 21.09)
PAR/RIT12 + OMB12 + DAS12		0.52 (0.18 to 1.41)	–6.38 (–18.69 to 3.74)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.59 (0.20 to 1.61)	–5.48 (–17.98 to 5.93)
DCV12 + SOF12		0.15 (0.01 to 1.84)	–10.99 (–22.60 to 8.55)
GRZ12 + ELB12		0.24 (0.06 to 0.93)	–10.09 (–21.96 to –0.65)
GRZ12 + ELB12 + RBV12		1.05 (0.28 to 3.60)	0.60 (–15.16 to 26.93)
GRZ12 + ELB12 (50 mg q.d.)		0.14 (0.01 to 1.29)	–11.19 (–22.72 to 3.06)
GRZ18 + ELB18 (50 mg q.d.)		0.13 (0.00 to 2.62)	–11.03 (–22.63 to 18.96)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.34 (0.03 to 3.22)	–8.37 (–21.03 to 25.11)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.42 (0.11 to 7.23)	5.56 (–16.26 to 67.28)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	3.26 (1.55 to 6.95)	26.85 (11.01 to 41.31)
T12 PR24-48 RGT q12		3.61 (1.68 to 7.81)	30.81 (12.93 to 48.58)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
T12 PR48 q8		2.05 (0.69 to 5.55)	12.39 (–5.68 to 37.60)
SOF12 + PR12		2.58 (1.09 to 5.84)	18.57 (1.64 to 37.65)
SOF12 PR24-48 RGT		1.49 (0.54 to 3.91)	5.65 (–9.09 to 23.79)
SIM12 PR24-48 RGT		1.43 (0.69 to 3.08)	5.01 (–6.65 to 13.95)
B24 PR28-48 RGT		3.17 (1.49 to 6.72)	25.71 (9.79 to 39.96)
B44 PR48		2.71 (0.99 to 6.81)	20.41 (–0.18 to 45.98)
PR24		1.72 (0.59 to 4.73)	8.38 (–7.63 to 31.35)
SOF24 + RBV (low dose) 24		1.47 (0.57 to 3.77)	5.52 (–7.83 to 23.68)
PAR/RIT12 + OMB12 + DAS12		0.59 (0.20 to 1.70)	–4.77 (–16.35 to 5.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.67 (0.23 to 1.91)	–3.75 (–15.77 to 7.32)
DCV12 + SOF12		0.17 (0.01 to 2.14)	–9.25 (–20.56 to 9.80)
GRZ12 + ELB12		0.28 (0.07 to 1.08)	–8.37 (–19.73 to 0.63)
GRZ12 + ELB12 + RBV12		1.18 (0.32 to 4.43)	2.04 (–12.55 to 28.64)
GRZ12 + ELB12 (50 mg q.d.)		0.17 (0.01 to 1.45)	–9.40 (–20.55 to 4.28)
GRZ18 + ELB18 (50 mg q.d.)		0.15 (0.00 to 2.97)	–9.25 (–20.76 to 20.50)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.39 (0.03 to 3.62)	–6.67 (–18.84 to 26.42)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.62 (0.12 to 8.77)	7.18 (–14.15 to 68.97)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.10 (0.86 to 1.39)	4.01 (–5.28 to 14.44)
T12 PR48 q8		0.63 (0.26 to 1.39)	–14.18 (–34.28 to 12.70)
SOF12 + PR12		0.79 (0.41 to 1.45)	–8.33 (–26.85 to 14.37)
SOF12 PR24-48 RGT		0.46 (0.20 to 0.98)	–20.93 (–38.11 to –0.75)
SIM12 PR24-48 RGT		0.44 (0.28 to 0.69)	–21.95 (–35.50 to –9.08)
B24 PR28-48 RGT		0.97 (0.61 to 1.51)	–1.06 (–18.44 to 15.58)
B44 PR48		0.84 (0.37 to 1.63)	–6.21 (–28.48 to 20.82)
PR24		0.53 (0.20 to 1.18)	–18.05 (–36.01 to 6.10)
SOF24 + RBV (low dose) 24		0.46 (0.18 to 0.99)	–21.05 (–37.70 to –0.37)
PAR/RIT12 + OMB12 + DAS12		0.18 (0.09 to 0.35)	–31.57 (–41.90 to –21.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.20 (0.08 to 0.49)	–30.72 (–44.54 to –15.80)
DCV12 + SOF12		0.05 (0.00 to 0.56)	–36.01 (–49.83 to –14.68)
GRZ12 + ELB12		0.08 (0.02 to 0.29)	–35.49 (–48.84 to –21.27)
GRZ12 + ELB12 + RBV12		0.37 (0.12 to 1.10)	–24.45 (–40.91 to 3.43)
GRZ12 + ELB12 (50 mg q.d.)		0.05 (0.00 to 0.40)	–36.44 (–49.75 to –18.92)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.82)	–36.04 (–49.60 to –6.39)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.12 (0.01 to 1.03)	–33.11 (–47.81 to 1.17)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.50 (0.04 to 2.14)	–19.38 (–42.41 to 42.07)
T12 PR48 q8	T12 PR24-48 RGT q12	0.58 (0.23 to 1.30)	–17.93 (–41.22 to 10.04)
SOF12 + PR12		0.71 (0.37 to 1.35)	–12.30 (–33.87 to 11.53)
SOF12 PR24-48 RGT		0.42 (0.18 to 0.91)	–24.76 (–44.93 to –3.01)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.40 (0.24 to 0.66)	–25.89 (–43.28 to –10.26)
B24 PR28-48 RGT		0.88 (0.54 to 1.44)	–5.08 (–25.24 to 13.53)
B44 PR48		0.76 (0.33 to 1.53)	–10.20 (–34.51 to 18.04)
PR24		0.48 (0.19 to 1.10)	–22.02 (–43.05 to 3.35)
SOF24 + RBV (low dose) 24		0.41 (0.16 to 0.92)	–25.01 (–44.92 to –2.66)
PAR/RIT12 + OMB12 + DAS12		0.17 (0.08 to 0.33)	–35.54 (–50.18 to –22.03)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.19 (0.08 to 0.46)	–34.56 (–52.15 to –17.31)
DCV12 + SOF12		0.05 (0.00 to 0.52)	–39.74 (–57.40 to –16.38)
GRZ12 + ELB12		0.08 (0.02 to 0.26)	–39.39 (–56.38 to –22.72)
GRZ12 + ELB12 + RBV12		0.33 (0.11 to 1.01)	–28.41 (–48.10 to 0.45)
GRZ12 + ELB12 (50 mg q.d.)		0.05 (0.00 to 0.37)	–40.26 (–57.35 to –20.68)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.75)	–39.69 (–57.06 to –9.80)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.11 (0.01 to 0.95)	–36.76 (–54.97 to –1.86)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.45 (0.04 to 1.97)	–22.94 (–48.97 to 38.26)
SOF12 + PR12	T12 PR48 q8	1.24 (0.51 to 3.25)	5.96 (–21.00 to 29.42)
SOF12 PR24-48 RGT		0.74 (0.23 to 2.20)	–6.36 (–35.32 to 15.94)
SIM12 PR24-48 RGT		0.69 (0.32 to 1.73)	–7.52 (–32.75 to 8.39)
B24 PR28-48 RGT		1.54 (0.70 to 3.75)	13.11 (–14.07 to 32.81)
B44 PR48		1.31 (0.46 to 3.69)	7.63 (–23.58 to 37.48)
PR24		0.83 (0.26 to 2.63)	–4.13 (–31.26 to 23.29)
SOF24 + RBV (low dose) 24		0.72 (0.23 to 2.30)	–6.80 (–33.18 to 17.53)
PAR/RIT12 + OMB12 + DAS12		0.29 (0.10 to 0.95)	–17.32 (–42.01 to –0.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.33 (0.15 to 0.75)	–16.26 (–38.70 to –3.27)
DCV12 + SOF12		0.09 (0.00 to 0.69)	–21.05 (–42.38 to –5.60)
GRZ12 + ELB12		0.13 (0.03 to 0.59)	–21.10 (–45.89 to –5.02)
GRZ12 + ELB12 + RBV12		0.58 (0.16 to 2.22)	–10.19 (–36.21 to 18.00)
GRZ12 + ELB12 (50 mg q.d.)		0.08 (0.01 to 0.75)	–21.79 (–47.13 to –3.80)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 1.64)	–21.28 (–46.69 to 11.56)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.19 (0.02 to 1.83)	–18.28 (–44.35 to 15.05)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.78 (0.06 to 4.27)	–5.10 (–37.45 to 55.76)
SOF12 PR24-48 RGT	SOF12 + PR12	0.58 (0.23 to 1.47)	–12.48 (–34.92 to 9.49)
SIM12 PR24-48 RGT		0.56 (0.33 to 1.00)	–13.45 (–31.93 to 0.04)
B24 PR28-48 RGT		1.23 (0.68 to 2.35)	7.07 (–14.82 to 25.87)
B44 PR48		1.06 (0.43 to 2.44)	1.88 (–24.35 to 30.56)
PR24		0.67 (0.28 to 1.51)	–9.92 (–29.41 to 12.18)
SOF24 + RBV (low dose) 24		0.57 (0.24 to 1.40)	–12.79 (–32.80 to 8.66)
PAR/RIT12 + OMB12 + DAS12		0.23 (0.09 to 0.60)	–23.28 (–42.78 to –7.89)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.26 (0.10 to 0.69)	–22.29 (–41.36 to –6.28)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV12 + SOF12		0.07 (0.00 to 0.68)	–27.20 (–46.90 to –7.98)
GRZ12 + ELB12		0.11 (0.03 to 0.38)	–26.89 (–46.68 to –12.23)
GRZ12 + ELB12 + RBV12		0.46 (0.14 to 1.64)	–15.74 (–38.93 to 13.87)
GRZ12 + ELB12 (50 mg q.d.)		0.06 (0.01 to 0.56)	–28.07 (–47.63 to –9.53)
GRZ18 + ELB18 (50 mg q.d.)		0.06 (0.00 to 1.15)	–27.47 (–47.39 to 3.67)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.15 (0.01 to 1.33)	–24.37 (–44.83 to 9.02)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.62 (0.06 to 3.10)	–11.39 (–38.14 to 49.86)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.97 (0.44 to 2.25)	–0.57 (–18.41 to 11.35)
B24 PR28-48 RGT		2.12 (0.99 to 4.88)	19.83 (–0.41 to 36.64)
B44 PR48		1.82 (0.65 to 5.00)	14.51 (–10.26 to 42.36)
PR24		1.16 (0.35 to 3.50)	2.73 (–19.01 to 27.82)
SOF24 + RBV (low dose) 24		0.98 (0.32 to 2.96)	–0.28 (–20.05 to 20.53)
PAR/RIT12 + OMB12 + DAS12		0.40 (0.14 to 1.22)	–10.44 (–27.38 to 2.15)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.45 (0.15 to 1.41)	–9.46 (–27.05 to 4.32)
DCV12 + SOF12		0.11 (0.01 to 1.64)	–14.82 (–32.11 to 7.24)
GRZ12 + ELB12		0.18 (0.05 to 0.77)	–14.11 (–31.05 to –2.41)
GRZ12 + ELB12 + RBV12		0.79 (0.21 to 3.09)	–3.51 (–23.43 to 24.72)
GRZ12 + ELB12 (50 mg q.d.)		0.11 (0.01 to 1.00)	–15.10 (–32.35 to –0.04)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 1.96)	–14.72 (–31.94 to 14.39)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.27 (0.02 to 2.44)	–11.69 (–30.54 to 21.17)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.11 (0.08 to 6.17)	1.83 (–25.50 to 64.84)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	2.22 (1.39 to 3.45)	20.80 (7.74 to 34.47)
B44 PR48		1.91 (0.85 to 3.76)	15.58 (–2.91 to 41.18)
PR24		1.20 (0.49 to 2.67)	3.44 (–9.65 to 25.95)
SOF24 + RBV (low dose) 24		1.03 (0.42 to 2.29)	0.57 (–10.99 to 19.18)
PAR/RIT12 + OMB12 + DAS12		0.42 (0.17 to 0.99)	–9.82 (–17.21 to –0.22)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.19 to 1.13)	–8.87 (–17.11 to 1.84)
DCV12 + SOF12		0.12 (0.01 to 1.29)	–14.30 (–21.66 to 4.36)
GRZ12 + ELB12		0.19 (0.06 to 0.67)	–13.57 (–20.51 to –4.78)
GRZ12 + ELB12 + RBV12		0.83 (0.26 to 2.57)	–2.85 (–15.06 to 23.50)
GRZ12 + ELB12 (50 mg q.d.)		0.12 (0.01 to 0.94)	–14.74 (–21.57 to –0.84)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 1.79)	–14.57 (–21.72 to 13.59)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.27 (0.02 to 2.35)	–11.94 (–20.26 to 21.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.12 (0.10 to 5.03)	2.02 (–16.94 to 63.43)
B44 PR48	B24 PR28-48 RGT	0.86 (0.39 to 1.72)	–5.19 (–26.75 to 22.40)
PR24		0.55 (0.21 to 1.25)	–16.95 (–35.48 to 7.78)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		0.47 (0.19 to 1.04)	–19.86 (–36.97 to 1.20)
PAR/RIT12 + OMB12 + DAS12		0.19 (0.08 to 0.44)	–30.44 (–43.88 to –16.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.21 (0.09 to 0.51)	–29.49 (–43.76 to –14.49)
DCV12 + SOF12		0.05 (0.00 to 0.57)	–34.85 (–48.76 to –13.73)
GRZ12 + ELB12		0.09 (0.03 to 0.30)	–34.35 (–47.60 to –20.26)
GRZ12 + ELB12 + RBV12		0.37 (0.12 to 1.16)	–23.26 (–40.56 to 4.95)
GRZ12 + ELB12 (50 mg q.d.)		0.05 (0.00 to 0.42)	–35.30 (–48.91 to –17.05)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.83)	–34.93 (–48.68 to –6.14)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.12 (0.01 to 1.05)	–31.95 (–46.87 to 1.59)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.52 (0.04 to 2.20)	–17.93 (–41.62 to 42.42)
PR24	B44 PR48	0.64 (0.22 to 1.75)	–11.56 (–38.74 to 15.20)
SOF24 + RBV (low dose) 24		0.55 (0.18 to 1.53)	–14.48 (–42.25 to 10.01)
PAR/RIT12 + OMB12 + DAS12		0.22 (0.08 to 0.64)	–25.07 (–50.61 to –6.31)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.25 (0.09 to 0.73)	–24.06 (–49.98 to –4.98)
DCV12 + SOF12		0.06 (0.00 to 0.66)	–29.21 (–54.81 to –7.09)
GRZ12 + ELB12		0.10 (0.03 to 0.41)	–28.85 (–54.23 to –10.58)
GRZ12 + ELB12 + RBV12		0.44 (0.12 to 1.55)	–17.36 (–45.16 to 12.33)
GRZ12 + ELB12 (50 mg q.d.)		0.06 (0.01 to 0.57)	–29.71 (–55.11 to –8.88)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.98)	–28.94 (–55.06 to –0.64)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.15 (0.01 to 1.39)	–25.70 (–52.77 to 9.19)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.58 (0.05 to 2.95)	–12.48 (–44.93 to 48.00)
SOF24 + RBV (low dose) 24	PR24	0.85 (0.32 to 2.48)	–2.97 (–24.92 to 17.51)
PAR/RIT12 + OMB12 + DAS12		0.34 (0.11 to 1.09)	–13.23 (–35.99 to 0.93)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.40 (0.12 to 1.29)	–12.01 (–35.38 to 2.99)
DCV12 + SOF12		0.10 (0.00 to 1.23)	–17.28 (–40.38 to 3.08)
GRZ12 + ELB12		0.16 (0.04 to 0.68)	–16.81 (–39.75 to –3.32)
GRZ12 + ELB12 + RBV12		0.69 (0.18 to 2.92)	–6.05 (–31.50 to 23.44)
GRZ12 + ELB12 (50 mg q.d.)		0.09 (0.01 to 1.00)	–17.85 (–40.31 to 0.04)
GRZ18 + ELB18 (50 mg q.d.)		0.09 (0.00 to 1.63)	–17.28 (–40.26 to 10.07)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.23 (0.02 to 2.16)	–14.48 (–37.15 to 17.96)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.95 (0.07 to 5.25)	–1.04 (–30.78 to 59.45)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	0.40 (0.13 to 1.27)	–10.30 (–28.34 to 2.50)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.45 (0.15 to 1.60)	–9.46 (–27.79 to 5.39)
DCV12 + SOF12		0.11 (0.01 to 1.61)	–14.61 (–32.76 to 6.38)
GRZ12 + ELB12		0.19 (0.05 to 0.76)	–14.05 (–32.06 to –2.26)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 + RBV12		0.81 (0.22 to 3.24)	–3.26 (–23.95 to 24.49)
GRZ12 + ELB12 (50 mg q.d.)		0.11 (0.01 to 1.10)	–15.05 (–33.41 to 1.13)
GRZ18 + ELB18 (50 mg q.d.)		0.11 (0.00 to 2.18)	–14.58 (–34.03 to 15.24)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.27 (0.02 to 2.77)	–11.71 (–31.59 to 22.15)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.11 (0.08 to 6.02)	1.81 (–26.69 to 63.27)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	1.14 (0.35 to 3.65)	0.91 (–8.65 to 11.40)
DCV12 + SOF12		0.28 (0.01 to 3.47)	–4.52 (–13.38 to 13.41)
GRZ12 + ELB12		0.46 (0.11 to 2.01)	–3.70 (–12.03 to 4.48)
GRZ12 + ELB12 + RBV12		1.99 (0.53 to 7.75)	6.82 (–5.49 to 32.46)
GRZ12 + ELB12 (50 mg q.d.)		0.27 (0.02 to 2.66)	–4.77 (–13.41 to 8.36)
GRZ18 + ELB18 (50 mg q.d.)		0.25 (0.01 to 4.70)	–4.69 (–13.37 to 23.08)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.65 (0.05 to 6.66)	–2.26 (–11.74 to 30.95)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.69 (0.22 to 14.61)	11.78 (–7.57 to 72.61)
DCV12 + SOF12	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.27 (0.01 to 2.45)	–5.06 (–14.95 to 11.32)
GRZ12 + ELB12		0.40 (0.10 to 1.78)	–4.52 (–14.34 to 3.90)
GRZ12 + ELB12 + RBV12		1.76 (0.47 to 7.12)	5.95 (–7.33 to 32.41)
GRZ12 + ELB12 (50 mg q.d.)		0.25 (0.02 to 2.28)	–5.64 (–15.41 to 6.93)
GRZ18 + ELB18 (50 mg q.d.)		0.21 (0.00 to 4.91)	–5.59 (–15.52 to 24.45)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.59 (0.04 to 5.53)	–3.02 (–13.44 to 29.56)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.33 (0.18 to 13.28)	11.16 (–9.40 to 71.87)
GRZ12 + ELB12	DCV12 + SOF12	1.67 (0.11 to 41.45)	1.08 (–17.40 to 8.66)
GRZ12 + ELB12 + RBV12		7.03 (0.49 to 165.10)	11.24 (–8.68 to 36.79)
GRZ12 + ELB12 (50 mg q.d.)		0.93 (0.02 to 43.14)	–0.08 (–18.62 to 12.45)
GRZ18 + ELB18 (50 mg q.d.)		0.80 (0.01 to 47.28)	–0.23 (–18.99 to 29.37)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.32 (0.06 to 118.60)	2.18 (–17.13 to 36.32)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		9.12 (0.31 to 303.00)	15.59 (–9.70 to 78.19)
GRZ12 + ELB12 + RBV12	GRZ12 + ELB12	4.33 (0.84 to 22.08)	10.41 (–1.18 to 35.90)
GRZ12 + ELB12 (50 mg q.d.)		0.59 (0.04 to 6.20)	–1.15 (–8.51 to 11.69)
GRZ18 + ELB18 (50 mg q.d.)		0.54 (0.01 to 11.41)	–1.27 (–8.30 to 27.42)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.42 (0.10 to 17.94)	1.27 (–6.68 to 34.31)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		5.78 (0.38 to 41.64)	15.47 (–3.13 to 76.15)
GRZ12 + ELB12 (50 mg q.d.)	GRZ12 + ELB12 + RBV12	0.14 (0.01 to 0.88)	–11.30 (–33.52 to –1.02)
GRZ18 + ELB18 (50 mg q.d.)		0.13 (0.00 to 2.18)	–10.95 (–34.66 to 14.80)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.34 (0.02 to 2.99)	–8.11 (–32.28 to 22.72)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.35 (0.11 to 7.18)	4.91 (–22.79 to 60.68)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	0.92 (0.03 to 11.50)	–0.10 (–8.15 to 24.24)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.41 (0.35 to 16.12)	2.24 (–3.84 to 32.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		9.16 (1.66 to 49.70)	16.59 (0.81 to 70.96)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ18 + ELB18 (50 mg q.d.)	2.56 (0.20 to 86.72)	1.95 (–14.66 to 28.92)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		8.92 (1.16 to 331.80)	15.76 (0.41 to 66.87)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	3.55 (0.83 to 24.74)	12.58 (–1.43 to 58.87)
Random effect model	Residual deviance	71.41 vs. 75 data points	
	Deviance information criteria	411.391	
Fixed effect model	Residual deviance	72.11 vs. 75 data points	
	Deviance information criteria	410.294	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 168: RASH TREATMENT-NAIVE WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR48	0.51 (0.17 to 1.31)	–8.98 (–16.31 to 5.61)
SOF24 + RBV24		0.78 (0.08 to 2.95)	–3.95 (–17.47 to 35.81)
SOF12 + LDV12		0.26 (0.14 to 0.46)	–13.48 (–17.49 to –9.08)
SOF8 + LDV8 + RBV8		0.90 (0.31 to 2.18)	–1.80 (–12.97 to 21.67)
SOF12 + LDV12 + RBV12		0.39 (0.20 to 0.74)	–11.14 (–15.92 to –4.65)
SOF24 + LDV24 + RBV24		0.49 (0.26 to 0.91)	–9.35 (–14.51 to –1.65)
T12 PR24-48 RGT q8		1.56 (1.08 to 2.21)	10.20 (1.39 to 22.19)
T12 PR24-48 RGT q12		1.47 (0.89 to 2.25)	8.61 (–2.13 to 23.00)
T12 PR48 q8		2.57 (1.34 to 3.97)	29.02 (6.47 to 50.79)
SOF12 + PR12		0.80 (0.38 to 1.57)	–3.60 (–11.91 to 10.28)
SOF12 PR24-48 RGT		1.55 (0.77 to 2.87)	10.05 (–4.47 to 31.65)
SIM12 PR24-48 RGT		1.12 (0.82 to 1.52)	2.13 (–3.42 to 9.17)
B24 PR28-48 RGT		1.11 (0.72 to 1.64)	2.06 (–5.13 to 11.66)
B44 PR48		2.75 (0.66 to 5.77)	32.33 (–6.95 to 75.52)
PR24		1.00 (0.31 to 2.46)	0.08 (–13.06 to 26.06)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV (low dose) 24		0.06 (0.01 to 0.30)	–17.05 (–21.06 to –11.97)
PAR/RIT12 + OMB12 + DAS12		0.22 (0.10 to 0.50)	–14.08 (–18.26 to –8.90)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.73 (0.39 to 1.31)	–4.90 (–11.80 to 5.43)
DCV24 + ASU24		0.13 (0.05 to 0.32)	–15.84 (–19.75 to –11.65)
DCV12 + SOF12		0.40 (0.05 to 1.64)	–10.88 (–18.93 to 11.66)
GRZ12 + ELB12 + RBV12		0.53 (0.17 to 1.69)	–8.61 (–16.75 to 11.56)
GRZ12 + ELB12 (50 mg q.d.)		0.28 (0.05 to 1.02)	–12.95 (–18.86 to 0.42)
GRZ18 + ELB18 (50 mg q.d.)		0.11 (0.00 to 1.00)	–15.96 (–20.77 to –0.09)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.01 (0.00 to 5.70)	0.17 (–20.06 to 80.68)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.78 (0.09 to 3.64)	–3.99 (–17.24 to 46.38)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.93 (0.30 to 4.97)	17.37 (–12.94 to 66.60)
SOF24 + RBV24	SOF12 + RBV12	1.49 (0.18 to 8.38)	4.38 (–13.06 to 43.59)
SOF12 + LDV12		0.52 (0.21 to 1.39)	–4.35 (–17.87 to 1.42)
SOF8 + LDV8 + RBV8		1.78 (0.52 to 5.99)	6.79 (–8.47 to 28.84)
SOF12 + LDV12 + RBV12		0.77 (0.25 to 2.38)	–1.95 (–16.43 to 5.85)
SOF24 + LDV24 + RBV24		0.96 (0.34 to 3.08)	–0.33 (–14.21 to 8.57)
T12 PR24-48 RGT q8		3.08 (1.10 to 9.66)	18.89 (2.08 to 33.53)
T12 PR24-48 RGT q12		2.91 (0.97 to 9.16)	17.30 (–0.69 to 34.01)
T12 PR48 q8		4.93 (1.74 to 16.34)	37.00 (12.68 to 60.42)
SOF12 + PR12		1.59 (0.73 to 3.55)	5.03 (–5.06 to 14.35)
SOF12 PR24-48 RGT		2.98 (1.01 to 10.63)	18.37 (0.16 to 41.77)
SIM12 PR24-48 RGT		2.21 (0.81 to 6.99)	10.91 (–4.30 to 21.26)
B24 PR28-48 RGT		2.19 (0.77 to 7.15)	10.75 (–4.92 to 23.19)
B44 PR48		5.16 (0.96 to 20.74)	40.50 (–0.73 to 83.67)
PR24		1.93 (1.12 to 3.37)	8.58 (0.89 to 25.29)
SOF24 + RBV (low dose) 24		0.12 (0.01 to 0.55)	–7.78 (–21.77 to –2.00)
PAR/RIT12 + OMB12 + DAS12		0.45 (0.12 to 1.71)	–4.96 (–19.63 to 2.84)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.46 (0.50 to 4.42)	4.05 (–10.74 to 15.11)
DCV24 + ASU24		0.25 (0.06 to 1.08)	–6.74 (–21.46 to 0.34)
DCV12 + SOF12		0.77 (0.08 to 4.84)	–1.98 (–17.46 to 20.94)
GRZ12 + ELB12 + RBV12		1.02 (0.23 to 5.40)	0.21 (–15.49 to 21.79)
GRZ12 + ELB12 (50 mg q.d.)		0.56 (0.08 to 3.44)	–3.83 (–19.00 to 11.59)
GRZ18 + ELB18 (50 mg q.d.)		0.23 (0.01 to 2.61)	–6.44 (–21.72 to 9.83)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.94 (0.00 to 20.66)	8.55 (–18.27 to 91.26)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.56 (0.13 to 10.23)	4.87 (–15.16 to 54.43)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		3.68 (0.47 to 17.27)	25.89 (–8.45 to 75.38)
SOF12 + LDV12	SOF24 + RBV24	0.34 (0.09 to 2.82)	–9.43 (–48.78 to 3.08)
SOF8 + LDV8 + RBV8		1.16 (0.23 to 10.23)	2.10 (–37.60 to 26.29)
SOF12 + LDV12 + RBV12		0.51 (0.12 to 4.37)	–7.00 (–46.30 to 6.44)
SOF24 + LDV24 + RBV24		0.64 (0.15 to 5.68)	–5.13 (–44.38 to 9.23)
T12 PR24-48 RGT q8		2.00 (0.49 to 18.40)	14.05 (–26.67 to 32.17)
T12 PR24-48 RGT q12		1.89 (0.46 to 17.88)	12.30 (–28.46 to 32.29)
T12 PR48 q8		3.11 (0.75 to 30.93)	30.83 (–12.55 to 60.42)
SOF12 + PR12		1.02 (0.25 to 9.29)	0.32 (–38.03 to 17.70)
SOF12 PR24-48 RGT		1.98 (0.45 to 20.10)	13.38 (–28.79 to 39.15)
SIM12 PR24-48 RGT		1.42 (0.37 to 13.43)	6.05 (–33.41 to 21.27)
B24 PR28-48 RGT		1.42 (0.35 to 13.09)	5.90 (–34.62 to 22.76)
B44 PR48		3.37 (0.53 to 38.71)	33.47 (–20.60 to 81.76)
PR24		1.32 (0.23 to 10.83)	4.03 (–35.51 to 30.93)
SOF24 + RBV (low dose) 24		0.08 (0.01 to 0.57)	–12.89 (–52.61 to –0.91)
PAR/RIT12 + OMB12 + DAS12		0.29 (0.06 to 2.87)	–10.28 (–49.75 to 3.57)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.94 (0.23 to 8.39)	–0.90 (–40.00 to 15.38)
DCV24 + ASU24		0.17 (0.03 to 1.76)	–11.93 (–51.52 to 1.39)
DCV12 + SOF12		0.51 (0.03 to 6.65)	–6.68 (–47.70 to 19.48)
GRZ12 + ELB12 + RBV12		0.69 (0.11 to 8.32)	–4.10 (–45.29 to 20.19)
GRZ12 + ELB12 (50 mg q.d.)		0.37 (0.04 to 4.98)	–8.29 (–48.25 to 9.93)
GRZ18 + ELB18 (50 mg q.d.)		0.16 (0.00 to 3.00)	–10.97 (–51.87 to 7.21)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.29 (0.00 to 26.66)	3.26 (–42.39 to 89.86)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.13 (0.07 to 13.23)	1.43 (–44.11 to 50.78)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.46 (0.24 to 26.55)	19.75 (–30.89 to 72.74)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	3.41 (1.44 to 7.83)	11.57 (1.91 to 34.25)
SOF12 + LDV12 + RBV12		1.49 (0.75 to 2.87)	2.26 (–1.51 to 7.97)
SOF24 + LDV24 + RBV24		1.88 (0.97 to 3.55)	4.07 (–0.16 to 10.78)
T12 PR24-48 RGT q8		5.99 (3.04 to 11.82)	23.64 (13.84 to 36.42)
T12 PR24-48 RGT q12		5.64 (2.63 to 11.70)	22.06 (10.38 to 37.26)
T12 PR48 q8		9.67 (4.56 to 19.93)	42.49 (20.42 to 63.74)
SOF12 + PR12		3.03 (1.84 to 5.23)	9.82 (3.50 to 21.84)
SOF12 PR24-48 RGT		5.87 (2.47 to 14.48)	23.59 (9.23 to 44.65)
SIM12 PR24-48 RGT		4.27 (2.24 to 8.32)	15.57 (8.92 to 23.60)
B24 PR28-48 RGT		4.28 (2.09 to 8.57)	15.49 (7.18 to 25.94)
B44 PR48		10.36 (2.31 to 27.71)	45.69 (7.71 to 87.74)
PR24		3.76 (1.30 to 9.40)	13.45 (1.44 to 38.69)
SOF24 + RBV (low dose) 24		0.23 (0.03 to 1.05)	–3.45 (–7.14 to 0.18)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.86 (0.30 to 2.26)	–0.63 (–5.01 to 4.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.82 (1.48 to 5.27)	8.57 (2.73 to 18.01)
DCV24 + ASU24		0.49 (0.16 to 1.48)	–2.35 (–6.33 to 1.71)
DCV12 + SOF12		1.55 (0.18 to 6.55)	2.57 (–5.04 to 24.66)
GRZ12 + ELB12 + RBV12		2.02 (0.55 to 7.39)	4.83 (–2.93 to 24.43)
GRZ12 + ELB12 (50 mg q.d.)		1.09 (0.17 to 4.59)	0.43 (–5.53 to 14.21)
GRZ18 + ELB18 (50 mg q.d.)		0.42 (0.01 to 4.02)	–2.54 (–7.09 to 12.98)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		3.80 (0.01 to 27.72)	13.57 (–6.42 to 94.27)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		3.11 (0.32 to 15.46)	9.63 (–3.85 to 59.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		7.53 (1.07 to 22.46)	30.98 (0.36 to 79.33)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	0.43 (0.16 to 1.26)	–9.11 (–32.26 to 1.82)
SOF24 + LDV24 + RBV24		0.54 (0.20 to 1.58)	–7.38 (–30.27 to 4.21)
T12 PR24-48 RGT q8		1.73 (0.66 to 5.12)	11.95 (–12.91 to 28.25)
T12 PR24-48 RGT q12		1.62 (0.58 to 5.00)	10.15 (–15.33 to 28.95)
T12 PR48 q8		2.77 (1.04 to 8.66)	29.29 (1.14 to 55.64)
SOF12 + PR12		0.89 (0.35 to 2.43)	–1.77 (–23.11 to 12.33)
SOF12 PR24-48 RGT		1.72 (0.57 to 5.98)	11.39 (–14.77 to 36.48)
SIM12 PR24-48 RGT		1.24 (0.48 to 3.73)	3.80 (–20.12 to 17.31)
B24 PR28-48 RGT		1.23 (0.47 to 3.76)	3.73 (–20.38 to 18.84)
B44 PR48		2.94 (0.59 to 11.10)	32.43 (–11.71 to 78.18)
PR24		1.10 (0.30 to 3.94)	1.58 (–22.27 to 27.54)
SOF24 + RBV (low dose) 24		0.07 (0.01 to 0.38)	–15.06 (–38.43 to –4.23)
PAR/RIT12 + OMB12 + DAS12		0.25 (0.07 to 0.90)	–12.25 (–36.06 to –0.59)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.82 (0.30 to 2.37)	–2.83 (–26.05 to 10.13)
DCV24 + ASU24		0.14 (0.04 to 0.58)	–13.92 (–37.73 to –2.72)
DCV12 + SOF12		0.45 (0.05 to 2.45)	–8.34 (–32.75 to 13.89)
GRZ12 + ELB12 + RBV12		0.59 (0.14 to 2.77)	–6.35 (–31.54 to 15.18)
GRZ12 + ELB12 (50 mg q.d.)		0.31 (0.05 to 1.66)	–10.57 (–34.72 to 5.83)
GRZ18 + ELB18 (50 mg q.d.)		0.12 (0.00 to 1.32)	–13.20 (–37.07 to 3.15)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.11 (0.00 to 10.63)	1.69 (–32.02 to 85.61)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.91 (0.08 to 5.50)	–1.36 (–30.30 to 48.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.17 (0.29 to 8.90)	18.61 (–20.45 to 69.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.26 (0.66 to 2.41)	1.80 (–3.59 to 7.81)
T12 PR24-48 RGT q8		4.02 (1.94 to 8.47)	21.19 (10.44 to 34.17)
T12 PR24-48 RGT q12		3.77 (1.70 to 8.27)	19.72 (7.31 to 35.01)
T12 PR48 q8		6.56 (2.75 to 14.28)	40.09 (17.53 to 61.91)
SOF12 + PR12		2.06 (0.91 to 4.70)	7.41 (–0.79 to 20.45)
SOF12 PR24-48 RGT		3.95 (1.63 to 10.44)	20.97 (6.18 to 42.55)
SIM12 PR24-48 RGT		2.89 (1.41 to 5.96)	13.24 (4.92 to 21.64)
B24 PR28-48 RGT		2.87 (1.31 to 6.15)	13.07 (3.51 to 23.96)
B44 PR48		6.95 (1.52 to 20.45)	43.29 (4.81 to 85.44)
PR24		2.52 (0.76 to 7.39)	10.94 (–2.15 to 36.74)
SOF24 + RBV (low dose) 24		0.15 (0.02 to 0.72)	–5.71 (–12.04 to –1.50)
PAR/RIT12 + OMB12 + DAS12		0.58 (0.20 to 1.64)	–2.90 (–9.79 to 3.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.91 (0.84 to 4.24)	6.36 (–1.80 to 16.30)
DCV24 + ASU24		0.34 (0.10 to 1.04)	–4.56 (–11.35 to 0.20)
DCV12 + SOF12		1.04 (0.11 to 4.57)	0.24 (–9.49 to 21.99)
GRZ12 + ELB12 + RBV12		1.36 (0.35 to 5.28)	2.44 (–7.21 to 22.45)
GRZ12 + ELB12 (50 mg q.d.)		0.73 (0.11 to 3.33)	–1.82 (–10.01 to 12.22)
GRZ18 + ELB18 (50 mg q.d.)		0.29 (0.01 to 3.08)	–4.59 (–12.21 to 11.28)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		2.59 (0.01 to 19.49)	11.16 (–10.29 to 92.12)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.06 (0.20 to 11.31)	7.28 (–7.80 to 57.15)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		4.96 (0.67 to 16.73)	28.37 (–3.09 to 77.40)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	3.19 (1.58 to 6.59)	19.37 (8.15 to 32.60)
T12 PR24-48 RGT q12		3.00 (1.38 to 6.50)	17.76 (4.95 to 33.26)
T12 PR48 q8		5.18 (2.29 to 11.18)	38.17 (15.71 to 59.84)
SOF12 + PR12		1.63 (0.71 to 3.59)	5.60 (–3.49 to 18.69)
SOF12 PR24-48 RGT		3.15 (1.26 to 7.78)	19.28 (3.27 to 41.01)
SIM12 PR24-48 RGT		2.28 (1.14 to 4.62)	11.41 (2.14 to 20.05)
B24 PR28-48 RGT		2.28 (1.08 to 4.78)	11.30 (1.10 to 22.10)
B44 PR48		5.46 (1.20 to 15.44)	41.39 (2.39 to 83.81)
PR24		2.04 (0.60 to 5.73)	9.22 (–4.66 to 34.72)
SOF24 + RBV (low dose) 24		0.12 (0.01 to 0.60)	–7.55 (–15.19 to –2.62)
PAR/RIT12 + OMB12 + DAS12		0.46 (0.16 to 1.28)	–4.73 (–12.72 to 1.68)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.52 (0.66 to 3.28)	4.50 (–4.45 to 14.78)
DCV24 + ASU24		0.27 (0.08 to 0.82)	–6.45 (–14.26 to –1.03)
DCV12 + SOF12		0.82 (0.09 to 3.68)	–1.55 (–11.94 to 20.40)
GRZ12 + ELB12 + RBV12		1.09 (0.29 to 4.02)	0.80 (–9.92 to 20.54)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.)		0.58 (0.09 to 2.59)	–3.60 (–12.90 to 10.62)
GRZ18 + ELB18 (50 mg q.d.)		0.22 (0.01 to 2.22)	–6.38 (–14.71 to 9.25)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		2.04 (0.01 to 15.05)	9.27 (–12.92 to 90.46)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.62 (0.17 to 8.12)	5.43 (–9.97 to 54.98)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		4.00 (0.53 to 12.63)	26.69 (–5.29 to 75.57)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.94 (0.68 to 1.23)	–1.61 (–9.48 to 6.62)
T12 PR48 q8		1.64 (0.82 to 2.84)	18.30 (–6.25 to 42.05)
SOF12 + PR12		0.51 (0.23 to 1.11)	–13.81 (–28.15 to 2.54)
SOF12 PR24-48 RGT		0.99 (0.47 to 2.02)	–0.15 (–19.15 to 23.08)
SIM12 PR24-48 RGT		0.72 (0.45 to 1.15)	–8.10 (–21.07 to 3.03)
B24 PR28-48 RGT		0.71 (0.41 to 1.21)	–8.08 (–22.19 to 4.73)
B44 PR48		1.76 (0.42 to 4.14)	21.91 (–19.98 to 68.20)
PR24		0.64 (0.19 to 1.69)	–10.10 (–28.58 to 17.08)
SOF24 + RBV (low dose) 24		0.04 (0.00 to 0.20)	–27.14 (–40.10 to –17.00)
PAR/RIT12 + OMB12 + DAS12		0.14 (0.07 to 0.28)	–24.24 (–34.80 to –16.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.23 to 0.94)	–15.00 (–29.13 to –1.37)
DCV24 + ASU24		0.08 (0.03 to 0.22)	–25.95 (–38.91 to –16.24)
DCV12 + SOF12		0.26 (0.03 to 1.12)	–20.64 (–36.00 to 2.99)
GRZ12 + ELB12 + RBV12		0.34 (0.10 to 1.14)	–18.48 (–33.63 to 3.34)
GRZ12 + ELB12 (50 mg q.d.)		0.18 (0.03 to 0.72)	–22.77 (–36.65 to –6.47)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.69)	–25.60 (–39.14 to –7.66)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.64 (0.00 to 4.04)	–10.01 (–36.11 to 72.30)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.50 (0.06 to 2.40)	–13.81 (–32.50 to 36.69)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.23 (0.18 to 3.40)	6.61 (–25.35 to 56.95)
T12 PR48 q8	T12 PR24-48 RGT q12	1.73 (0.83 to 3.33)	19.84 (–5.73 to 44.29)
SOF12 + PR12		0.55 (0.23 to 1.29)	–12.05 (–28.64 to 5.63)
SOF12 PR24-48 RGT		1.06 (0.48 to 2.35)	1.51 (–18.94 to 25.56)
SIM12 PR24-48 RGT		0.76 (0.45 to 1.36)	–6.54 (–21.55 to 6.28)
B24 PR28-48 RGT		0.76 (0.41 to 1.44)	–6.51 (–22.43 to 8.08)
B44 PR48		1.85 (0.44 to 4.74)	23.22 (–18.81 to 70.14)
PR24		0.68 (0.20 to 1.93)	–8.40 (–28.73 to 19.57)
SOF24 + RBV (low dose) 24		0.04 (0.00 to 0.22)	–25.60 (–40.75 to –13.67)
PAR/RIT12 + OMB12 + DAS12		0.15 (0.07 to 0.32)	–22.63 (–36.13 to –12.20)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.50 (0.23 to 1.09)	–13.33 (–29.58 to 1.71)
DCV24 + ASU24		0.09 (0.03 to 0.25)	–24.41 (–39.58 to –12.84)
DCV12 + SOF12		0.27 (0.03 to 1.25)	–18.87 (–36.35 to 5.27)
GRZ12 + ELB12 + RBV12		0.36 (0.10 to 1.26)	–16.71 (–33.96 to 5.50)
GRZ12 + ELB12 (50 mg q.d.)		0.20 (0.03 to 0.79)	–20.97 (–37.25 to –4.12)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.77)	–23.92 (–40.01 to –4.89)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.69 (0.00 to 4.60)	–8.21 (–35.91 to 74.72)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.54 (0.06 to 2.62)	–11.85 (–32.77 to 38.83)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.31 (0.19 to 3.87)	8.26 (–24.90 to 58.94)
SOF12 + PR12	T12 PR48 q8	0.32 (0.13 to 0.72)	–31.82 (–55.55 to –8.57)
SOF12 PR24-48 RGT		0.61 (0.27 to 1.47)	–18.29 (–46.41 to 13.47)
SIM12 PR24-48 RGT		0.44 (0.25 to 0.89)	–26.72 (–49.87 to –2.89)
B24 PR28-48 RGT		0.43 (0.24 to 0.89)	–26.70 (–49.57 to –2.96)
B44 PR48		1.07 (0.26 to 2.80)	3.12 (–42.82 to 56.18)
PR24		0.40 (0.12 to 1.10)	–27.50 (–54.84 to 3.58)
SOF24 + RBV (low dose) 24		0.02 (0.00 to 0.13)	–46.01 (–67.56 to –23.39)
PAR/RIT12 + OMB12 + DAS12		0.09 (0.03 to 0.24)	–42.91 (–64.61 to –20.46)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.29 (0.16 to 0.54)	–33.25 (–53.89 to –13.26)
DCV24 + ASU24		0.05 (0.02 to 0.15)	–44.81 (–66.14 to –22.40)
DCV12 + SOF12		0.16 (0.03 to 0.53)	–37.84 (–57.95 to –18.65)
GRZ12 + ELB12 + RBV12		0.21 (0.06 to 0.72)	–36.31 (–60.57 to –8.64)
GRZ12 + ELB12 (50 mg q.d.)		0.11 (0.02 to 0.49)	–40.95 (–63.91 to –15.38)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.44)	–44.12 (–66.02 to –18.21)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.40 (0.00 to 2.78)	–25.33 (–62.67 to 59.44)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.31 (0.03 to 1.65)	–30.87 (–59.01 to 23.43)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.76 (0.10 to 2.33)	–11.07 (–52.06 to 42.89)
SOF12 PR24-48 RGT	SOF12 + PR12	1.93 (0.76 to 5.41)	13.45 (–5.52 to 36.62)
SIM12 PR24-48 RGT		1.40 (0.66 to 3.12)	5.78 (–9.36 to 16.53)
B24 PR28-48 RGT		1.39 (0.63 to 3.18)	5.56 (–9.61 to 18.32)
B44 PR48		3.33 (0.72 to 10.13)	35.25 (–5.80 to 80.62)
PR24		1.22 (0.49 to 2.84)	3.19 (–8.68 to 24.78)
SOF24 + RBV (low dose) 24		0.08 (0.01 to 0.33)	–13.42 (–26.57 to –5.68)
PAR/RIT12 + OMB12 + DAS12		0.28 (0.09 to 0.83)	–10.40 (–24.66 to –1.39)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.92 (0.41 to 2.08)	–1.19 (–14.61 to 9.68)
DCV24 + ASU24		0.16 (0.05 to 0.53)	–12.28 (–26.31 to –3.82)
DCV12 + SOF12		0.50 (0.06 to 2.35)	–7.02 (–22.66 to 15.37)
GRZ12 + ELB12 + RBV12		0.67 (0.16 to 2.65)	–4.72 (–20.94 to 16.59)
GRZ12 + ELB12 (50 mg q.d.)		0.36 (0.05 to 1.69)	–9.02 (–24.94 to 6.70)
GRZ18 + ELB18 (50 mg q.d.)		0.14 (0.00 to 1.38)	–11.56 (–26.78 to 4.09)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.25 (0.00 to 10.11)	3.55 (–23.22 to 86.22)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.01 (0.10 to 5.09)	0.16 (–20.78 to 49.14)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.40 (0.34 to 8.29)	20.74 (–13.33 to 69.78)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.72 (0.37 to 1.52)	–8.04 (–29.90 to 8.33)
B24 PR28-48 RGT		0.71 (0.34 to 1.57)	–8.07 (–30.50 to 9.49)
B44 PR48		1.74 (0.40 to 5.06)	21.43 (–24.40 to 70.43)
PR24		0.65 (0.17 to 1.92)	–9.59 (–36.34 to 18.55)
SOF24 + RBV (low dose) 24		0.04 (0.00 to 0.20)	–27.10 (–47.73 to –13.10)
PAR/RIT12 + OMB12 + DAS12		0.14 (0.05 to 0.41)	–24.24 (–44.98 to –9.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.19 to 1.15)	–14.75 (–37.33 to 2.54)
DCV24 + ASU24		0.08 (0.03 to 0.26)	–25.99 (–46.39 to –11.80)
DCV12 + SOF12		0.25 (0.03 to 1.19)	–20.34 (–43.41 to 4.22)
GRZ12 + ELB12 + RBV12		0.34 (0.09 to 1.29)	–18.52 (–40.23 to 5.99)
GRZ12 + ELB12 (50 mg q.d.)		0.18 (0.03 to 0.82)	–22.72 (–44.17 to –3.63)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.69)	–25.15 (–46.19 to –6.72)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.65 (0.00 to 4.70)	–9.38 (–42.25 to 74.63)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.51 (0.05 to 2.65)	–13.32 (–39.40 to 37.03)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.24 (0.17 to 4.01)	6.72 (–30.78 to 58.28)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	1.00 (0.59 to 1.63)	–0.08 (–9.93 to 10.97)
B44 PR48		2.47 (0.58 to 5.47)	30.17 (–10.23 to 73.86)
PR24		0.90 (0.27 to 2.35)	–1.98 (–17.14 to 24.63)
SOF24 + RBV (low dose) 24		0.05 (0.01 to 0.28)	–19.10 (–27.05 to –11.92)
PAR/RIT12 + OMB12 + DAS12		0.20 (0.08 to 0.47)	–16.12 (–24.10 to –8.94)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.66 (0.32 to 1.27)	–6.97 (–16.82 to 4.71)
DCV24 + ASU24		0.12 (0.05 to 0.27)	–17.94 (–24.99 to –12.27)
DCV12 + SOF12		0.36 (0.04 to 1.54)	–12.89 (–23.57 to 10.27)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 + RBV12		0.47 (0.14 to 1.56)	–10.63 (–21.46 to 10.07)
GRZ12 + ELB12 (50 mg q.d.)		0.25 (0.05 to 0.97)	–15.01 (–24.02 to –0.48)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 0.93)	–17.72 (–26.41 to –1.33)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.90 (0.00 to 5.47)	–1.92 (–24.50 to 79.14)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.70 (0.08 to 3.27)	–6.00 (–21.56 to 43.67)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.71 (0.26 to 4.66)	14.87 (–15.94 to 64.90)
B44 PR48	B24 PR28-48 RGT	2.46 (0.57 to 5.90)	30.07 (–10.37 to 74.24)
PR24		0.90 (0.26 to 2.46)	–1.94 (–18.91 to 25.11)
SOF24 + RBV (low dose) 24		0.05 (0.01 to 0.28)	–19.00 (–29.45 to –10.59)
PAR/RIT12 + OMB12 + DAS12		0.20 (0.08 to 0.50)	–16.05 (–26.49 to –7.40)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.66 (0.31 to 1.36)	–6.70 (–18.91 to 5.48)
DCV24 + ASU24		0.12 (0.04 to 0.32)	–17.81 (–28.14 to –9.76)
DCV12 + SOF12		0.36 (0.04 to 1.59)	–12.61 (–25.88 to 10.30)
GRZ12 + ELB12 + RBV12		0.48 (0.14 to 1.62)	–10.45 (–23.43 to 10.28)
GRZ12 + ELB12 (50 mg q.d.)		0.26 (0.05 to 1.03)	–14.78 (–26.38 to 0.57)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 0.95)	–17.49 (–28.78 to –0.81)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.90 (0.00 to 5.82)	–1.99 (–26.02 to 80.08)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.71 (0.08 to 3.37)	–5.79 (–22.89 to 43.61)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.73 (0.26 to 4.93)	15.04 (–16.36 to 64.83)
PR24	B44 PR48	0.37 (0.09 to 1.95)	–31.45 (–76.10 to 16.07)
SOF24 + RBV (low dose) 24		0.02 (0.00 to 0.16)	–49.21 (–90.60 to –11.95)
PAR/RIT12 + OMB12 + DAS12		0.08 (0.02 to 0.41)	–46.22 (–88.32 to –8.32)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.10 to 1.24)	–36.97 (–79.87 to 3.43)
DCV24 + ASU24		0.05 (0.01 to 0.27)	–48.15 (–89.81 to –10.18)
DCV12 + SOF12		0.15 (0.02 to 1.14)	–41.90 (–84.83 to 2.42)
GRZ12 + ELB12 + RBV12		0.20 (0.05 to 1.09)	–39.67 (–82.83 to 1.52)
GRZ12 + ELB12 (50 mg q.d.)		0.11 (0.02 to 0.67)	–44.30 (–88.21 to –5.31)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.55)	–47.21 (–90.77 to –7.45)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		0.39 (0.00 to 4.30)	–24.04 (–84.76 to 68.29)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.32 (0.03 to 2.04)	–32.29 (–83.09 to 22.68)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.75 (0.09 to 3.51)	–12.22 (–69.92 to 46.34)
SOF24 + RBV (low dose) 24	PR24	0.06 (0.01 to 0.32)	–16.97 (–42.44 to –4.55)
PAR/RIT12 + OMB12 + DAS12		0.23 (0.06 to 0.92)	–14.06 (–40.05 to –0.54)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.75 (0.26 to 2.41)	–4.66 (–30.00 to 10.27)
DCV24 + ASU24		0.13 (0.03 to 0.59)	–15.82 (–42.06 to –2.62)
DCV12 + SOF12		0.40 (0.04 to 2.55)	–10.06 (–37.03 to 14.64)
GRZ12 + ELB12 + RBV12		0.52 (0.12 to 2.79)	–8.37 (–35.74 to 15.24)
GRZ12 + ELB12 (50 mg q.d.)		0.29 (0.04 to 1.84)	–12.64 (–39.64 to 6.83)
GRZ18 + ELB18 (50 mg q.d.)		0.12 (0.00 to 1.44)	–15.28 (–41.77 to 3.93)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.01 (0.00 to 10.84)	0.17 (–36.50 to 85.50)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.82 (0.06 to 5.36)	–2.86 (–34.31 to 46.56)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.90 (0.23 to 9.14)	16.53 (–25.53 to 68.34)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV (low dose) 24	3.80 (0.58 to 34.03)	2.86 (–1.96 to 8.18)
PAR/RIT12 + OMB12 + DAS12 + RBV12		12.49 (2.27 to 113.30)	12.08 (5.05 to 22.35)
DCV24 + ASU24		2.26 (0.33 to 20.67)	1.20 (–3.34 to 4.85)
DCV12 + SOF12		6.54 (0.52 to 75.97)	5.88 (–1.36 to 28.43)
GRZ12 + ELB12 + RBV12		9.02 (1.14 to 97.60)	8.33 (0.54 to 27.63)
GRZ12 + ELB12 (50 mg q.d.)		5.02 (0.44 to 52.66)	3.91 (–1.77 to 17.62)
GRZ18 + ELB18 (50 mg q.d.)		1.99 (0.04 to 34.36)	0.85 (–3.83 to 16.91)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		16.11 (0.04 to 342.20)	17.03 (–2.56 to 97.84)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		14.06 (0.86 to 145.90)	13.25 (–0.38 to 62.93)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		32.21 (2.49 to 261.20)	34.43 (3.62 to 83.05)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	3.27 (1.20 to 9.29)	9.19 (1.45 to 19.67)
DCV24 + ASU24		0.58 (0.17 to 2.02)	–1.65 (–6.97 to 2.50)
DCV12 + SOF12		1.77 (0.19 to 9.57)	3.04 (–5.35 to 25.86)
GRZ12 + ELB12 + RBV12		2.36 (0.57 to 10.06)	5.35 (–3.02 to 24.86)
GRZ12 + ELB12 (50 mg q.d.)		1.29 (0.20 to 6.05)	1.10 (–5.70 to 14.46)
GRZ18 + ELB18 (50 mg q.d.)		0.48 (0.02 to 5.93)	–1.91 (–7.80 to 14.52)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		4.41 (0.01 to 38.37)	14.13 (–6.39 to 95.04)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		3.52 (0.33 to 21.16)	10.09 (–3.53 to 60.25)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		8.47 (1.18 to 33.26)	31.31 (0.91 to 80.05)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.18 (0.06 to 0.52)	–10.93 (–21.27 to –3.97)
DCV12 + SOF12		0.55 (0.07 to 2.23)	–5.72 (–17.09 to 14.78)
GRZ12 + ELB12 + RBV12		0.71 (0.20 to 2.61)	–3.83 (–16.33 to 16.78)
GRZ12 + ELB12 (50 mg q.d.)		0.39 (0.06 to 1.63)	–7.93 (–19.43 to 6.67)
GRZ18 + ELB18 (50 mg q.d.)		0.15 (0.00 to 1.54)	–10.67 (–21.54 to 5.52)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.38 (0.00 to 9.87)	4.91 (–19.36 to 86.56)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.08 (0.10 to 5.77)	0.97 (–16.65 to 51.21)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.61 (0.35 to 8.56)	21.75 (–10.04 to 71.91)
DCV12 + SOF12	DCV24 + ASU24	3.05 (0.34 to 17.51)	4.75 (–2.45 to 27.17)
GRZ12 + ELB12 + RBV12		4.12 (0.89 to 18.95)	7.13 (–0.47 to 26.29)
GRZ12 + ELB12 (50 mg q.d.)		2.22 (0.33 to 11.47)	2.72 (–2.71 to 16.36)
GRZ18 + ELB18 (50 mg q.d.)		0.83 (0.03 to 9.61)	–0.38 (–4.60 to 15.46)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		7.60 (0.02 to 70.79)	15.88 (–3.74 to 96.54)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		6.19 (0.58 to 37.47)	11.96 (–1.36 to 61.44)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		14.78 (1.93 to 60.50)	33.25 (2.65 to 81.64)
GRZ12 + ELB12 + RBV12	DCV12 + SOF12	1.38 (0.20 to 12.58)	2.48 (–21.09 to 22.22)
GRZ12 + ELB12 (50 mg q.d.)		0.72 (0.07 to 9.76)	–1.77 (–24.97 to 13.75)
GRZ18 + ELB18 (50 mg q.d.)		0.29 (0.01 to 5.52)	–4.40 (–26.89 to 12.58)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		2.47 (0.01 to 50.87)	9.94 (–21.81 to 93.31)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.07 (0.14 to 25.21)	6.63 (–19.20 to 57.67)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		4.89 (0.42 to 51.20)	27.14 (–10.72 to 76.99)
GRZ12 + ELB12 (50 mg q.d.)	GRZ12 + ELB12 + RBV12	0.55 (0.11 to 1.88)	–4.00 (–19.25 to 5.80)
GRZ18 + ELB18 (50 mg q.d.)		0.20 (0.01 to 2.32)	–6.89 (–25.50 to 8.46)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		1.86 (0.00 to 19.79)	8.19 (–21.43 to 90.82)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.48 (0.17 to 8.86)	4.58 (–14.10 to 52.79)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		3.52 (0.53 to 13.76)	24.80 (–6.17 to 72.57)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	0.38 (0.02 to 4.24)	–2.92 (–14.75 to 10.59)
GRZ8 + ELB8 (50 mg q.d.) + RBV8		3.41 (0.01 to 49.94)	12.50 (–13.12 to 94.33)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.66 (0.49 to 16.53)	8.44 (–2.99 to 55.77)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		6.19 (1.61 to 30.13)	29.53 (2.56 to 75.01)
GRZ8 + ELB8 (50 mg q.d.) + RBV8	GRZ18 + ELB18 (50 mg q.d.)	8.22 (0.02 to 587.70)	14.96 (–10.76 to 97.07)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		7.10 (0.80 to 150.20)	10.99 (–1.18 to 56.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		15.92 (2.26 to 379.00)	32.14 (4.17 to 78.15)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ8 + ELB8 (50 mg q.d.) + RBV8	0.82 (0.04 to 372.80)	–2.56 (–89.61 to 51.44)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.84 (0.12 to 794.50)	11.49 (–78.35 to 75.57)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	2.23 (0.82 to 10.03)	17.92 (–4.44 to 53.99)
Random effect model	Residual deviance	70.62 vs. 73 data points	
	Deviance information criteria	407.53	
Fixed effect model	Residual deviance	71.8 vs. 73 data points	
	Deviance information criteria	407.329	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 169: ANEMIA TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	0.03 (0.00 to 0.11)	–17.95 (–20.76 to –15.29)
SOF12 + LDV12 + RBV12		0.32 (0.16 to 0.59)	–12.61 (–16.48 to –7.31)
SOF24 + LDV24 + RBV24		0.52 (0.22 to 1.05)	–8.93 (–15.10 to 0.94)
T12 PR48 q8		1.94 (1.29 to 2.78)	17.36 (5.63 to 31.61)
SIM12 PR24-48 RGT		0.83 (0.45 to 1.46)	–3.07 (–10.56 to 8.31)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR48		0.67 (0.38 to 1.16)	–6.07 (–12.00 to 2.77)
B32 PR36-48 RGT		2.42 (1.54 to 3.52)	26.38 (10.28 to 45.02)
SOF12 + RBV12		0.72 (0.30 to 1.59)	–5.19 (–13.33 to 10.77)
SOF24 + RBV24		0.39 (0.08 to 1.35)	–11.34 (–17.84 to 6.31)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.07)	–18.25 (–20.96 to –15.66)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.27 (0.11 to 0.65)	–13.40 (–17.57 to –6.18)
DCV24 + ASU24 + PR24		0.27 (0.10 to 0.77)	–13.44 (–17.90 to –4.22)
SOF12 + PR12		1.02 (0.56 to 1.73)	0.28 (–8.44 to 13.04)
GRZ12 + ELB12 + RBV12		0.50 (0.17 to 1.18)	–9.31 (–15.99 to 3.36)
GRZ12 + ELB12 (50 mg q.d.)		0.04 (0.00 to 0.43)	–17.42 (–20.54 to –10.30)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.45)	–17.33 (–20.52 to –9.80)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.33 (0.05 to 1.20)	–12.33 (–18.66 to 3.57)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.67 (0.20 to 1.71)	–6.07 (–15.31 to 12.90)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	12.77 (2.90 to 86.65)	5.33 (2.32 to 10.02)
SOF24 + LDV24 + RBV24		21.05 (3.97 to 157.90)	8.98 (3.41 to 18.67)
T12 PR48 q8		77.44 (16.43 to 532.60)	35.28 (23.80 to 49.45)
SIM12 PR24-48 RGT		33.38 (6.74 to 260.90)	14.88 (7.58 to 26.38)
SIM12 PR48		27.31 (5.58 to 195.70)	11.82 (6.52 to 20.45)
B32 PR36-48 RGT		97.92 (21.65 to 653.60)	44.40 (28.66 to 62.71)
SOF12 + RBV12		29.46 (5.63 to 213.00)	12.71 (4.99 to 28.54)
SOF24 + RBV24		15.62 (2.11 to 144.50)	6.55 (0.90 to 23.90)
PAR/RIT12 + OMB12 + DAS12		0.41 (0.02 to 6.40)	–0.22 (–1.81 to 0.92)
PAR/RIT12 + OMB12 + DAS12 + RBV12		10.94 (1.93 to 89.46)	4.48 (1.23 to 11.38)
DCV24 + ASU24 + PR24		11.06 (1.74 to 101.70)	4.39 (0.94 to 13.58)
SOF12 + PR12		40.66 (8.18 to 306.90)	18.24 (9.90 to 30.83)
GRZ12 + ELB12 + RBV12		19.67 (3.35 to 172.20)	8.59 (2.49 to 21.33)
GRZ12 + ELB12 (50 mg q.d.)		1.62 (0.02 to 38.64)	0.25 (–1.36 to 7.38)
GRZ18 + ELB18 (50 mg q.d.)		2.08 (0.02 to 40.77)	0.45 (–1.46 to 7.86)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		12.73 (1.28 to 162.10)	5.46 (0.25 to 21.34)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		27.39 (3.83 to 221.70)	11.85 (2.98 to 30.52)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.61 (0.65 to 3.97)	3.59 (–2.74 to 13.04)
T12 PR48 q8		5.96 (3.06 to 13.08)	29.77 (17.96 to 44.07)
SIM12 PR24-48 RGT		2.61 (1.09 to 6.50)	9.42 (0.74 to 21.17)
SIM12 PR48		2.10 (0.96 to 4.89)	6.44 (–0.34 to 15.24)
B32 PR36-48 RGT		7.50 (3.68 to 16.82)	38.82 (22.57 to 57.64)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12		2.23 (0.78 to 6.54)	7.21 (–1.87 to 23.51)
SOF24 + RBV24		1.21 (0.23 to 4.89)	1.21 (–6.30 to 18.59)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.21)	–5.62 (–10.36 to –2.77)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.86 (0.29 to 2.56)	–0.81 (–6.56 to 6.49)
DCV24 + ASU24 + PR24		0.84 (0.26 to 3.04)	–0.92 (–6.59 to 8.70)
SOF12 + PR12		3.17 (1.36 to 7.73)	12.77 (3.16 to 26.02)
GRZ12 + ELB12 + RBV12		1.54 (0.47 to 4.88)	3.14 (–4.37 to 16.42)
GRZ12 + ELB12 (50 mg q.d.)		0.13 (0.00 to 1.47)	–4.76 (–9.77 to 2.29)
GRZ18 + ELB18 (50 mg q.d.)		0.16 (0.00 to 1.65)	–4.58 (–9.91 to 3.03)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.04 (0.15 to 4.35)	0.20 (–7.09 to 15.96)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.07 (0.54 to 6.98)	6.34 (–3.82 to 25.68)
T12 PR48 q8	SOF24 + LDV24 + RBV24	3.75 (1.66 to 9.69)	26.00 (11.18 to 41.53)
SIM12 PR24-48 RGT		1.62 (0.63 to 4.50)	5.74 (–6.11 to 18.56)
SIM12 PR48		1.31 (0.54 to 3.65)	2.86 (–8.04 to 13.28)
B32 PR36-48 RGT		4.66 (2.06 to 11.87)	35.07 (16.86 to 54.76)
SOF12 + RBV12		1.38 (0.46 to 4.59)	3.56 (–8.43 to 20.50)
SOF24 + RBV24		0.75 (0.13 to 3.50)	–2.27 (–13.76 to 15.82)
PAR/RIT12 + OMB12 + DAS12		0.02 (0.00 to 0.17)	–9.27 (–18.97 to –3.71)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.53 (0.17 to 1.83)	–4.38 (–14.60 to 4.23)
DCV24 + ASU24 + PR24		0.52 (0.15 to 2.16)	–4.40 (–14.83 to 6.59)
SOF12 + PR12		1.98 (0.78 to 5.32)	9.19 (–3.59 to 22.84)
GRZ12 + ELB12 + RBV12		0.96 (0.28 to 3.19)	–0.39 (–11.95 to 13.16)
GRZ12 + ELB12 (50 mg q.d.)		0.08 (0.00 to 0.95)	–8.27 (–18.19 to –0.34)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 1.08)	–8.15 (–17.95 to 0.59)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.63 (0.09 to 3.02)	–3.37 (–14.51 to 13.50)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.29 (0.32 to 4.62)	2.70 (–10.43 to 22.38)
SIM12 PR24-48 RGT	T12 PR48 q8	0.43 (0.21 to 0.85)	–20.14 (–36.48 to –4.08)
SIM12 PR48		0.35 (0.23 to 0.53)	–23.14 (–34.47 to –13.76)
B32 PR36-48 RGT		1.26 (0.73 to 2.11)	9.11 (–12.25 to 30.52)
SOF12 + RBV12		0.37 (0.15 to 0.85)	–22.10 (–37.95 to –4.53)
SOF24 + RBV24		0.20 (0.04 to 0.72)	–27.94 (–43.83 to –8.38)
PAR/RIT12 + OMB12 + DAS12		0.00 (0.00 to 0.04)	–35.59 (–49.62 to –24.17)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.14 (0.07 to 0.28)	–30.47 (–41.89 to –20.57)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24		0.14 (0.05 to 0.38)	–30.28 (–43.57 to –18.28)
SOF12 + PR12		0.52 (0.27 to 1.03)	–16.99 (–33.73 to 0.84)
GRZ12 + ELB12 + RBV12		0.26 (0.08 to 0.66)	–26.17 (–42.44 to –9.66)
GRZ12 + ELB12 (50 mg q.d.)		0.02 (0.00 to 0.22)	–34.41 (–48.78 to –21.84)
GRZ18 + ELB18 (50 mg q.d.)		0.03 (0.00 to 0.24)	–34.20 (–48.80 to –21.73)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.17 (0.02 to 0.66)	–29.03 (–44.86 to –10.30)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.35 (0.10 to 0.95)	–22.93 (–40.20 to –1.39)
SIM12 PR48	SIM12 PR24-48 RGT	0.81 (0.36 to 1.86)	–2.92 (–15.70 to 8.21)
B32 PR36-48 RGT		2.89 (1.40 to 6.11)	29.26 (9.36 to 49.67)
SOF12 + RBV12		0.85 (0.30 to 2.41)	–2.21 (–16.29 to 15.64)
SOF24 + RBV24		0.46 (0.09 to 1.90)	–7.99 (–21.14 to 10.39)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.10)	–15.15 (–26.65 to –7.87)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.33 (0.11 to 0.94)	–10.15 (–22.21 to –0.55)
DCV24 + ASU24 + PR24		0.32 (0.10 to 1.12)	–10.12 (–22.13 to 1.31)
SOF12 + PR12		1.22 (0.54 to 2.79)	3.33 (–10.94 to 18.02)
GRZ12 + ELB12 + RBV12		0.60 (0.18 to 1.73)	–6.10 (–19.26 to 8.04)
GRZ12 + ELB12 (50 mg q.d.)		0.05 (0.00 to 0.55)	–14.03 (–25.63 to –4.91)
GRZ18 + ELB18 (50 mg q.d.)		0.06 (0.00 to 0.61)	–13.95 (–25.69 to –4.39)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.39 (0.05 to 1.70)	–9.09 (–22.04 to 8.06)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.80 (0.21 to 2.55)	–3.09 (–17.52 to 17.27)
B32 PR36-48 RGT	SIM12 PR48	3.60 (1.86 to 6.66)	32.34 (14.83 to 50.73)
SOF12 + RBV12		1.07 (0.42 to 2.54)	0.81 (–9.68 to 16.07)
SOF24 + RBV24		0.58 (0.11 to 2.18)	–5.07 (–15.46 to 12.56)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.11)	–12.13 (–20.69 to –6.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.41 (0.17 to 0.93)	–7.20 (–14.63 to –0.71)
DCV24 + ASU24 + PR24		0.40 (0.17 to 1.01)	–7.12 (–13.88 to 0.07)
SOF12 + PR12		1.51 (0.68 to 3.40)	6.20 (–5.83 to 20.51)
GRZ12 + ELB12 + RBV12		0.74 (0.22 to 2.04)	–3.14 (–14.09 to 10.22)
GRZ12 + ELB12 (50 mg q.d.)		0.06 (0.00 to 0.68)	–11.09 (–19.97 to –3.25)
GRZ18 + ELB18 (50 mg q.d.)		0.08 (0.00 to 0.68)	–10.94 (–19.84 to –3.30)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.49 (0.07 to 2.02)	–6.10 (–16.31 to 10.25)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.99 (0.27 to 2.93)	–0.08 (–12.55 to 19.37)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	B32 PR36-48 RGT	0.30 (0.15 to 0.56)	–30.97 (–45.31 to –17.51)
SOF24 + RBV24		0.16 (0.04 to 0.48)	–36.52 (–52.61 to –21.53)
PAR/RIT12 + OMB12 + DAS12		0.00 (0.00 to 0.03)	–44.74 (–63.08 to –28.79)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.11 (0.04 to 0.30)	–39.51 (–58.12 to –22.41)
DCV24 + ASU24 + PR24		0.11 (0.04 to 0.33)	–39.38 (–58.06 to –22.19)
SOF12 + PR12		0.42 (0.21 to 0.83)	–25.68 (–47.13 to –5.81)
GRZ12 + ELB12 + RBV12		0.20 (0.07 to 0.56)	–35.52 (–55.05 to –15.30)
GRZ12 + ELB12 (50 mg q.d.)		0.02 (0.00 to 0.18)	–43.42 (–62.19 to –26.89)
GRZ18 + ELB18 (50 mg q.d.)		0.02 (0.00 to 0.19)	–43.32 (–62.03 to –26.43)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.13 (0.02 to 0.54)	–38.20 (–57.61 to –16.05)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.28 (0.08 to 0.77)	–32.00 (–52.95 to –8.07)
SOF24 + RBV24	SOF12 + RBV12	0.54 (0.11 to 1.93)	–5.67 (–20.36 to 9.54)
PAR/RIT12 + OMB12 + DAS12		0.01 (0.00 to 0.13)	–13.01 (–28.97 to –5.32)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.38 (0.12 to 1.25)	–8.05 (–23.66 to 1.80)
DCV24 + ASU24 + PR24		0.38 (0.11 to 1.32)	–7.94 (–23.45 to 2.63)
SOF12 + PR12		1.43 (0.51 to 3.92)	5.55 (–13.18 to 20.49)
GRZ12 + ELB12 + RBV12		0.68 (0.19 to 2.37)	–4.04 (–20.49 to 10.65)
GRZ12 + ELB12 (50 mg q.d.)		0.06 (0.00 to 0.71)	–11.85 (–27.91 to –2.51)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.75)	–11.74 (–27.78 to –2.12)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.45 (0.06 to 2.33)	–6.81 (–23.29 to 10.82)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.92 (0.22 to 3.34)	–1.06 (–18.61 to 19.07)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	0.03 (0.00 to 0.34)	–6.85 (–24.50 to –1.09)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.71 (0.16 to 4.07)	–1.94 (–19.06 to 6.66)
DCV24 + ASU24 + PR24		0.71 (0.14 to 4.53)	–1.97 (–19.09 to 8.27)
SOF12 + PR12		2.62 (0.64 to 13.77)	11.20 (–7.94 to 25.38)
GRZ12 + ELB12 + RBV12		1.28 (0.24 to 7.63)	1.89 (–16.48 to 16.16)
GRZ12 + ELB12 (50 mg q.d.)		0.11 (0.00 to 1.92)	–5.68 (–23.53 to 2.79)
GRZ18 + ELB18 (50 mg q.d.)		0.12 (0.00 to 2.13)	–5.74 (–23.44 to 3.09)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.83 (0.09 to 6.74)	–1.13 (–18.72 to 15.91)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.73 (0.31 to 11.13)	4.79 (–13.96 to 24.58)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	28.61 (3.12 to 431.20)	4.77 (1.63 to 11.61)
DCV24 + ASU24 + PR24		29.23 (2.70 to 446.20)	4.68 (1.31 to 13.88)
SOF12 + PR12		106.10 (12.97 to 1,420.00)	18.54 (10.31 to 31.07)
GRZ12 + ELB12 + RBV12		52.34 (4.69 to 845.00)	8.88 (2.78 to 21.53)
GRZ12 + ELB12 (50 mg q.d.)		4.39 (0.03 to 182.70)	0.54 (–0.90 to 7.63)
GRZ18 + ELB18 (50 mg q.d.)		4.57 (0.06 to 181.30)	0.62 (–0.73 to 8.11)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		33.54 (2.34 to 645.10)	5.82 (0.61 to 21.55)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		67.82 (5.84 to 1,253.00)	12.17 (3.31 to 30.84)
DCV24 + ASU24 + PR24	PAR/RIT12 + OMB12 + DAS12 + RBV12	1.00 (0.29 to 3.40)	–0.02 (–6.76 to 8.59)
SOF12 + PR12		3.71 (1.30 to 10.65)	13.53 (2.89 to 26.66)
GRZ12 + ELB12 + RBV12		1.81 (0.45 to 6.57)	3.99 (–5.01 to 17.05)
GRZ12 + ELB12 (50 mg q.d.)		0.16 (0.00 to 1.89)	–3.88 (–10.78 to 3.12)
GRZ18 + ELB18 (50 mg q.d.)		0.18 (0.00 to 1.87)	–3.71 (–10.70 to 3.36)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.20 (0.15 to 5.88)	0.97 (–7.33 to 16.83)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.46 (0.56 to 8.84)	7.14 (–3.93 to 26.01)
SOF12 + PR12	DCV24 + ASU24 + PR24	3.76 (1.14 to 12.25)	13.41 (1.56 to 26.77)
GRZ12 + ELB12 + RBV12		1.85 (0.39 to 7.18)	4.02 (–7.12 to 16.94)
GRZ12 + ELB12 (50 mg q.d.)		0.16 (0.00 to 1.96)	–3.77 (–13.13 to 3.19)
GRZ18 + ELB18 (50 mg q.d.)		0.19 (0.00 to 1.93)	–3.60 (–12.93 to 3.33)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.20 (0.15 to 6.42)	0.97 (–9.23 to 16.88)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		2.45 (0.51 to 10.28)	7.03 (–5.14 to 26.31)
GRZ12 + ELB12 + RBV12	SOF12 + PR12	0.49 (0.15 to 1.48)	–9.53 (–23.79 to 6.28)
GRZ12 + ELB12 (50 mg q.d.)		0.04 (0.00 to 0.45)	–17.36 (–30.14 to –7.33)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.49)	–17.32 (–30.19 to –6.85)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.32 (0.05 to 1.38)	–12.41 (–26.67 to 5.45)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.66 (0.17 to 2.02)	–6.19 (–22.18 to 14.17)
GRZ12 + ELB12 (50 mg q.d.)	GRZ12 + ELB12 + RBV12	0.08 (0.00 to 1.09)	–7.80 (–20.67 to 0.46)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.)		0.10 (0.00 to 1.18)	–7.69 (–20.54 to 0.94)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.66 (0.09 to 3.55)	–2.85 (–16.73 to 13.60)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.36 (0.31 to 5.49)	3.15 (–11.95 to 22.57)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	1.06 (0.01 to 170.60)	0.02 (–6.27 to 7.12)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		7.68 (0.43 to 725.30)	4.69 (–2.35 to 20.31)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		15.09 (1.32 to 1138.00)	10.95 (1.36 to 29.56)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ18 + ELB18 (50 mg q.d.)	6.90 (0.45 to 376.00)	4.58 (–2.74 to 19.88)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		13.38 (1.17 to 824.50)	10.87 (1.00 to 29.41)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	2.07 (0.41 to 14.06)	6.04 (–9.66 to 23.69)
Random effect model	Residual deviance	43.4 vs. 45 data points	
	Deviance information criteria	255.187	
Fixed effect model	Residual deviance	43.87 vs. 45 data points	
	Deviance information criteria	254.562	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 170: RASH TREATMENT-EXPERIENCED WITH EMERGING TREATMENTS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL (ALL GENOTYPES)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	0.66 (0.04 to 4.10)	–4.61 (–13.94 to 41.24)
SOF12 + LDV12		0.16 (0.04 to 0.53)	–11.32 (–14.49 to –5.97)
SOF12 + LDV12 + RBV12		0.64 (0.34 to 1.29)	–4.81 (–9.75 to 3.81)
SOF24 + LDV24 + RBV24		0.77 (0.34 to 1.84)	–3.11 (–9.34 to 10.98)
T12 PR48 q8		2.20 (1.37 to 3.65)	16.34 (5.09 to 34.62)
SIM12 PR24-48 RGT		1.02 (0.46 to 2.07)	0.28 (–7.47 to 14.23)
SIM12 PR48		1.44 (0.82 to 2.49)	6.01 (–2.46 to 19.21)
SOF12 + SIM12 + RBV12		1.79 (0.36 to 4.82)	10.68 (–8.90 to 49.52)
B32 PR36-48 RGT		2.21 (1.05 to 3.81)	16.54 (0.69 to 35.41)
SOF12 + RBV12		1.11 (0.38 to 2.63)	1.52 (–8.75 to 21.22)
SOF24 + RBV24		1.31 (0.28 to 3.67)	4.16 (–9.98 to 34.93)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.32)	–12.66 (–15.65 to –8.61)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.61 (0.23 to 1.69)	–5.22 (–10.88 to 9.08)
DCV24 + ASU24		0.28 (0.07 to 0.85)	–9.71 (–13.80 to –1.89)
DCV24 + ASU24 + PR24		2.62 (0.98 to 4.78)	22.13 (–0.21 to 48.49)
SOF12 + PR12		1.40 (0.66 to 2.74)	5.40 (–4.87 to 21.97)
GRZ12 + ELB12 (50 mg q.d.)		0.35 (0.06 to 1.38)	–8.81 (–13.68 to 4.94)
GRZ18 + ELB18 (50 mg q.d.)		0.05 (0.00 to 0.47)	–12.69 (–15.64 to –6.85)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.57 (0.13 to 1.89)	–5.87 (–12.43 to 11.55)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.53 (0.12 to 1.81)	–6.37 (–12.70 to 10.52)
SOF12 + LDV12	SIM12 + SOF12	0.23 (0.02 to 5.55)	–6.58 (–52.23 to 3.43)
SOF12 + LDV12 + RBV12		0.99 (0.14 to 17.81)	–0.09 (–46.17 to 12.51)
SOF24 + LDV24 + RBV24		1.20 (0.16 to 22.17)	1.58 (–44.13 to 18.12)
T12 PR48 q8		3.32 (0.51 to 57.99)	19.89 (–25.79 to 41.01)
SIM12 PR24-48 RGT		1.55 (0.21 to 28.88)	4.58 (–40.98 to 21.66)
SIM12 PR48		2.19 (0.33 to 37.00)	9.99 (–35.64 to 26.28)
SOF12 + SIM12 + RBV12		2.56 (0.58 to 26.19)	11.94 (–14.48 to 42.24)
B32 PR36-48 RGT		3.26 (0.55 to 48.40)	18.90 (–22.27 to 40.24)
SOF12 + RBV12		1.64 (0.23 to 27.17)	5.15 (–37.86 to 26.39)
SOF24 + RBV24		1.95 (0.22 to 32.13)	7.33 (–37.00 to 38.28)
PAR/RIT12 + OMB12 + DAS12		0.08 (0.00 to 2.10)	–7.97 (–53.81 to 1.11)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.92 (0.12 to 17.86)	–0.62 (–45.88 to 15.90)
DCV24 + ASU24		0.43 (0.05 to 7.40)	–4.80 (–50.52 to 5.80)
DCV24 + ASU24 + PR24		3.76 (0.67 to 56.26)	23.31 (–15.17 to 50.43)
SOF12 + PR12		2.08 (0.30 to 40.51)	8.86 (–36.39 to 29.20)
GRZ12 + ELB12 (50 mg q.d.)		0.54 (0.04 to 12.40)	–3.70 (–49.81 to 12.67)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 2.34)	–7.80 (–53.48 to 1.98)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.89 (0.08 to 15.63)	–0.91 (–47.41 to 17.82)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.79 (0.08 to 17.98)	–1.76 (–47.23 to 17.50)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	4.12 (1.23 to 15.66)	6.41 (1.18 to 14.11)
SOF24 + LDV24 + RBV24		4.82 (1.40 to 20.17)	8.13 (1.72 to 20.89)
T12 PR48 q8		13.89 (3.91 to 56.36)	27.60 (15.31 to 44.91)
SIM12 PR24-48 RGT		6.50 (1.47 to 28.86)	11.59 (2.23 to 25.28)
SIM12 PR48		9.15 (2.44 to 36.84)	17.32 (7.58 to 29.72)
SOF12 + SIM12 + RBV12		10.92 (1.50 to 58.61)	21.76 (1.85 to 60.48)
B32 PR36-48 RGT		13.80 (3.50 to 59.83)	27.74 (11.46 to 46.16)
SOF12 + RBV12		6.87 (1.49 to 34.62)	12.63 (2.02 to 31.96)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24		8.13 (1.19 to 42.35)	15.35 (0.66 to 45.75)
PAR/RIT12 + OMB12 + DAS12		0.34 (0.02 to 3.09)	–1.27 (–6.24 to 2.20)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.93 (0.82 to 18.49)	6.07 (–0.88 to 19.58)
DCV24 + ASU24		1.76 (0.29 to 9.62)	1.52 (–3.83 to 8.96)
DCV24 + ASU24 + PR24		16.15 (3.58 to 72.49)	33.38 (10.41 to 59.21)
SOF12 + PR12		8.80 (2.02 to 38.23)	16.62 (5.37 to 32.59)
GRZ12 + ELB12 (50 mg q.d.)		2.18 (0.25 to 13.92)	2.41 (–3.79 to 16.05)
GRZ18 + ELB18 (50 mg q.d.)		0.28 (0.01 to 4.06)	–1.33 (–6.21 to 4.22)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		3.46 (0.54 to 20.94)	5.32 (–2.12 to 22.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		3.28 (0.48 to 21.28)	4.81 (–2.35 to 21.53)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.20 (0.48 to 2.79)	1.68 (–6.57 to 13.63)
T12 PR48 q8		3.39 (1.59 to 7.08)	21.03 (8.05 to 38.02)
SIM12 PR24-48 RGT		1.59 (0.53 to 4.03)	5.06 (–6.54 to 19.01)
SIM12 PR48		2.24 (0.98 to 4.74)	10.75 (–0.33 to 23.20)
SOF12 + SIM12 + RBV12		2.74 (0.47 to 8.80)	15.20 (–6.33 to 54.30)
B32 PR36-48 RGT		3.42 (1.23 to 7.76)	21.14 (3.05 to 40.44)
SOF12 + RBV12		1.73 (0.49 to 4.91)	6.18 (–6.62 to 25.87)
SOF24 + RBV24		2.02 (0.37 to 6.85)	8.83 (–8.14 to 39.64)
PAR/RIT12 + OMB12 + DAS12		0.08 (0.01 to 0.52)	–7.77 (–15.91 to –2.91)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.96 (0.30 to 2.85)	–0.30 (–9.55 to 13.19)
DCV24 + ASU24		0.43 (0.09 to 1.52)	–4.77 (–13.70 to 3.24)
DCV24 + ASU24 + PR24		4.02 (1.19 to 9.51)	26.71 (2.31 to 53.16)
SOF12 + PR12		2.16 (0.78 to 5.34)	10.05 (–3.16 to 26.53)
GRZ12 + ELB12 (50 mg q.d.)		0.52 (0.08 to 2.43)	–4.00 (–13.20 to 9.89)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.79)	–7.81 (–16.01 to –1.42)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.87 (0.17 to 3.48)	–1.11 (–11.47 to 16.66)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.81 (0.16 to 3.25)	–1.58 (–11.74 to 15.60)
T12 PR48 q8	SOF24 + LDV24 + RBV24	2.84 (1.14 to 7.33)	19.13 (2.90 to 37.02)
SIM12 PR24-48 RGT		1.33 (0.40 to 3.73)	3.38 (–12.46 to 17.52)
SIM12 PR48		1.87 (0.70 to 4.88)	8.96 (–6.32 to 22.71)
SOF12 + SIM12 + RBV12		2.25 (0.38 to 8.32)	13.13 (–10.70 to 52.85)
B32 PR36-48 RGT		2.84 (0.91 to 7.41)	19.25 (–1.75 to 38.81)
SOF12 + RBV12		1.44 (0.37 to 4.62)	4.45 (–12.20 to 24.41)
SOF24 + RBV24		1.67 (0.29 to 6.19)	6.98 (–12.76 to 38.07)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.07 (0.00 to 0.50)	–9.54 (–23.01 to –2.80)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.80 (0.23 to 2.73)	–2.06 (–16.02 to 11.93)
DCV24 + ASU24		0.36 (0.07 to 1.42)	–6.44 (–20.53 to 2.62)
DCV24 + ASU24 + PR24		3.35 (0.90 to 9.17)	24.89 (–1.74 to 51.47)
SOF12 + PR12		1.80 (0.57 to 5.23)	8.25 (–9.06 to 25.50)
GRZ12 + ELB12 (50 mg q.d.)		0.45 (0.06 to 2.23)	–5.49 (–19.54 to 8.79)
GRZ18 + ELB18 (50 mg q.d.)		0.06 (0.00 to 0.71)	–9.44 (–23.15 to –1.95)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.74 (0.13 to 3.13)	–2.60 (–17.64 to 15.40)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.68 (0.13 to 2.93)	–3.20 (–17.83 to 14.04)
SIM12 PR24-48 RGT	T12 PR48 q8	0.47 (0.17 to 1.06)	–15.79 (–35.68 to 1.33)
SIM12 PR48		0.66 (0.38 to 1.04)	–10.03 (–25.19 to 1.06)
SOF12 + SIM12 + RBV12		0.81 (0.15 to 2.33)	–5.81 (–32.74 to 33.55)
B32 PR36-48 RGT		1.01 (0.42 to 1.92)	0.23 (–23.56 to 21.28)
SOF12 + RBV12		0.51 (0.16 to 1.27)	–14.49 (–34.55 to 6.46)
SOF24 + RBV24		0.59 (0.12 to 1.75)	–11.88 (–35.43 to 19.16)
PAR/RIT12 + OMB12 + DAS12		0.02 (0.00 to 0.13)	–28.96 (–45.90 to –17.76)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.28 (0.12 to 0.61)	–21.08 (–33.96 to –10.55)
DCV24 + ASU24		0.13 (0.03 to 0.39)	–25.68 (–43.39 to –13.33)
DCV24 + ASU24 + PR24		1.19 (0.40 to 2.40)	5.74 (–23.60 to 33.14)
SOF12 + PR12		0.63 (0.26 to 1.42)	–10.86 (–32.03 to 9.25)
GRZ12 + ELB12 (50 mg q.d.)		0.16 (0.02 to 0.67)	–24.75 (–42.98 to –8.06)
GRZ18 + ELB18 (50 mg q.d.)		0.02 (0.00 to 0.22)	–28.85 (–46.54 to –16.55)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.26 (0.06 to 0.90)	–21.60 (–40.84 to –2.44)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.24 (0.05 to 0.85)	–22.20 (–41.19 to –3.86)
SIM12 PR48	SIM12 PR24-48 RGT	1.42 (0.58 to 3.81)	5.65 (–10.27 to 20.98)
SOF12 + SIM12 + RBV12		1.72 (0.31 to 6.22)	9.87 (–14.03 to 50.13)
B32 PR36-48 RGT		2.16 (0.77 to 5.55)	15.94 (–5.39 to 36.74)
SOF12 + RBV12		1.09 (0.30 to 3.52)	1.18 (–15.89 to 21.91)
SOF24 + RBV24		1.28 (0.23 to 4.78)	3.69 (–16.62 to 35.70)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.39)	–12.97 (–26.68 to –4.28)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.60 (0.19 to 2.32)	–5.41 (–19.74 to 10.74)
DCV24 + ASU24		0.28 (0.06 to 1.09)	–9.77 (–24.16 to 0.61)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24		2.55 (0.76 to 6.72)	21.51 (–4.87 to 48.94)
SOF12 + PR12		1.36 (0.50 to 3.87)	4.93 (–11.97 to 23.09)
GRZ12 + ELB12 (50 mg q.d.)		0.34 (0.05 to 1.71)	–8.76 (–23.15 to 6.58)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.54)	–12.86 (–26.66 to –3.57)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.55 (0.11 to 2.38)	–6.00 (–21.08 to 12.74)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.52 (0.10 to 2.25)	–6.41 (–21.21 to 11.42)
SOF12 + SIM12 + RBV12	SIM12 PR48	1.22 (0.24 to 3.59)	4.37 (–18.73 to 43.22)
B32 PR36-48 RGT		1.53 (0.68 to 3.01)	10.32 (–8.32 to 29.81)
SOF12 + RBV12		0.78 (0.26 to 1.87)	–4.31 (–18.80 to 14.58)
SOF24 + RBV24		0.90 (0.19 to 2.76)	–1.88 (–20.67 to 28.70)
PAR/RIT12 + OMB12 + DAS12		0.04 (0.00 to 0.22)	–18.64 (–31.10 to –9.81)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.42 (0.17 to 1.15)	–11.01 (–22.56 to 2.55)
DCV24 + ASU24		0.19 (0.05 to 0.58)	–15.36 (–27.86 to –6.07)
DCV24 + ASU24 + PR24		1.80 (0.64 to 3.78)	15.72 (–8.54 to 42.25)
SOF12 + PR12		0.97 (0.38 to 2.39)	–0.58 (–17.65 to 18.72)
GRZ12 + ELB12 (50 mg q.d.)		0.24 (0.04 to 1.06)	–14.50 (–28.22 to 0.88)
GRZ18 + ELB18 (50 mg q.d.)		0.03 (0.00 to 0.36)	–18.62 (–31.22 to –8.75)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.40 (0.08 to 1.45)	–11.57 (–25.88 to 7.05)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.37 (0.08 to 1.40)	–12.10 (–26.24 to 6.15)
B32 PR36-48 RGT	SOF12+ SIM12 + RBV12	1.23 (0.46 to 5.03)	5.50 (–29.26 to 27.54)
SOF12 + RBV12		0.63 (0.17 to 3.10)	–8.52 (–45.82 to 15.80)
SOF24 + RBV24		0.74 (0.14 to 3.88)	–5.48 (–43.91 to 25.71)
PAR/RIT12 + OMB12 + DAS12		0.03 (0.00 to 0.34)	–23.24 (–61.82 to –3.42)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.35 (0.09 to 2.31)	–15.24 (–53.88 to 8.44)
DCV24 + ASU24		0.16 (0.04 to 0.86)	–19.92 (–57.95 to –0.83)
DCV24 + ASU24 + PR24		1.45 (0.59 to 5.08)	10.10 (–20.35 to 34.03)
SOF12 + PR12		0.79 (0.23 to 4.42)	–5.02 (–45.05 to 21.61)
GRZ12 + ELB12 (50 mg q.d.)		0.20 (0.03 to 1.64)	–18.76 (–57.69 to 4.36)
GRZ18 + ELB18 (50 mg q.d.)		0.03 (0.00 to 0.46)	–23.15 (–61.53 to –3.26)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.32 (0.06 to 2.18)	–15.78 (–54.27 to 8.91)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.31 (0.05 to 2.27)	–16.04 (–55.32 to 9.03)
SOF12 + RBV12	B32 PR36-48 RGT	0.51 (0.22 to 1.10)	–14.23 (–29.97 to 2.38)
SOF24 + RBV24		0.60 (0.16 to 1.43)	–11.32 (–29.84 to 11.90)
PAR/RIT12 + OMB12 + DAS12		0.02 (0.00 to 0.17)	–29.16 (–47.68 to –12.92)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.28 (0.10 to 0.97)	–21.37 (–40.47 to –0.50)
DCV24 + ASU24		0.13 (0.04 to 0.34)	–25.85 (–42.58 to –11.69)
DCV24 + ASU24 + PR24		1.17 (0.62 to 1.98)	5.16 (–11.27 to 24.44)
SOF12 + PR12		0.63 (0.25 to 1.74)	–10.93 (–33.46 to 12.80)
GRZ12 + ELB12 (50 mg q.d.)		0.16 (0.02 to 0.77)	–24.80 (–44.33 to –4.33)
GRZ18 + ELB18 (50 mg q.d.)		0.02 (0.00 to 0.24)	–29.00 (–47.66 to –12.50)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.26 (0.06 to 1.06)	–21.83 (–41.84 to 1.22)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.25 (0.05 to 1.00)	–22.02 (–42.74 to 0.01)
SOF24 + RBV24	SOF12 + RBV12	1.18 (0.26 to 3.96)	2.59 (–18.50 to 30.32)
PAR/RIT12 + OMB12 + DAS12		0.05 (0.00 to 0.39)	–14.11 (–33.41 to –3.73)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.55 (0.16 to 2.29)	–6.48 (–25.96 to 9.69)
DCV24 + ASU24		0.26 (0.06 to 0.88)	–10.90 (–29.44 to –0.98)
DCV24 + ASU24 + PR24		2.31 (0.84 to 6.15)	19.68 (–3.59 to 43.53)
SOF12 + PR12		1.26 (0.39 to 4.48)	3.83 (–19.06 to 23.59)
GRZ12 + ELB12 (50 mg q.d.)		0.31 (0.04 to 1.77)	–9.84 (–29.91 to 6.32)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.56)	–14.06 (–33.36 to –2.94)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.51 (0.10 to 2.45)	–7.06 (–27.27 to 11.86)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.49 (0.09 to 2.45)	–7.40 (–27.86 to 11.41)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	0.04 (0.00 to 0.49)	–16.76 (–47.24 to –2.20)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.47 (0.12 to 3.02)	–8.93 (–39.83 to 11.03)
DCV24 + ASU24		0.22 (0.05 to 1.08)	–13.39 (–42.99 to 0.38)
DCV24 + ASU24 + PR24		1.95 (0.68 to 7.93)	16.41 (–11.36 to 43.13)
SOF12 + PR12		1.05 (0.31 to 5.87)	0.94 (–30.36 to 24.10)
GRZ12 + ELB12 (50 mg q.d.)		0.28 (0.03 to 2.10)	–12.24 (–43.81 to 6.79)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ18 + ELB18 (50 mg q.d.)		0.04 (0.00 to 0.60)	–16.63 (–47.43 to –1.90)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.43 (0.08 to 3.00)	–9.57 (–40.19 to 11.95)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.42 (0.07 to 3.02)	–9.71 (–41.83 to 11.65)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	11.90 (1.80 to 164.20)	7.39 (1.74 to 20.79)
DCV24 + ASU24		5.32 (0.55 to 88.90)	2.84 (–1.34 to 10.24)
DCV24 + ASU24 + PR24		48.60 (6.27 to 703.90)	34.71 (11.88 to 60.75)
SOF12 + PR12		26.64 (3.56 to 399.40)	18.00 (7.47 to 34.05)
GRZ12 + ELB12 (50 mg q.d.)		6.48 (0.55 to 124.00)	3.76 (–1.25 to 17.41)
GRZ18 + ELB18 (50 mg q.d.)		0.91 (0.02 to 27.75)	–0.04 (–3.58 to 5.55)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		10.73 (1.01 to 174.50)	6.78 (0.02 to 24.06)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		10.02 (0.95 to 178.50)	6.22 (–0.14 to 22.77)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.46 (0.09 to 1.85)	–4.29 (–18.54 to 4.04)
DCV24 + ASU24 + PR24		4.22 (1.03 to 12.61)	26.84 (0.41 to 52.98)
SOF12 + PR12		2.26 (0.66 to 7.32)	10.28 (–6.53 to 27.38)
GRZ12 + ELB12 (50 mg q.d.)		0.55 (0.07 to 3.12)	–3.52 (–17.68 to 10.95)
GRZ18 + ELB18 (50 mg q.d.)		0.07 (0.00 to 0.96)	–7.33 (–21.07 to –0.20)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.92 (0.16 to 4.27)	–0.60 (–15.77 to 16.62)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.86 (0.15 to 4.16)	–1.17 (–15.72 to 15.67)
DCV24 + ASU24 + PR24	DCV24 + ASU24	8.90 (2.86 to 31.87)	31.37 (10.07 to 56.07)
SOF12 + PR12		4.91 (1.30 to 23.33)	14.83 (2.58 to 31.76)
GRZ12 + ELB12 (50 mg q.d.)		1.21 (0.14 to 9.21)	0.74 (–7.71 to 14.77)
GRZ18 + ELB18 (50 mg q.d.)		0.16 (0.00 to 2.51)	–2.82 (–10.43 to 2.99)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		2.01 (0.35 to 12.40)	3.62 (–5.42 to 20.90)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.91 (0.29 to 11.84)	3.24 (–5.96 to 20.14)
SOF12 + PR12	DCV24 + ASU24 + PR24	0.54 (0.21 to 1.77)	–16.32 (–45.51 to 12.05)
GRZ12 + ELB12 (50 mg q.d.)		0.13 (0.02 to 0.71)	–30.26 (–57.02 to –4.67)
GRZ18 + ELB18 (50 mg q.d.)		0.02 (0.00 to 0.22)	–34.62 (–60.61 to –11.64)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.22 (0.05 to 1.01)	–27.08 (–53.99 to 0.09)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.21 (0.04 to 0.95)	–27.55 (–55.08 to –0.83)
GRZ12 + ELB12 (50 mg q.d.)	SOF12 + PR12	0.25 (0.04 to 1.24)	–13.65 (–30.80 to 3.15)
GRZ18 + ELB18 (50 mg q.d.)		0.03 (0.00 to 0.39)	–17.89 (–34.02 to –6.94)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		0.41 (0.08 to 1.64)	–10.79 (–28.66 to 8.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		0.38 (0.08 to 1.61)	–11.30 (–29.13 to 7.96)
GRZ18 + ELB18 (50 mg q.d.)	GRZ12 + ELB12 (50 mg q.d.)	0.13 (0.00 to 2.00)	–3.72 (–16.80 to 1.98)
GRZ12 + ELB12 (50 mg q.d.) + RBV12		1.61 (0.27 to 12.48)	2.56 (–9.65 to 19.02)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		1.51 (0.25 to 10.99)	2.19 (–10.37 to 18.15)
GRZ12 + ELB12 (50 mg q.d.) + RBV12	GRZ18 + ELB18 (50 mg q.d.)	12.04 (0.93 to 382.50)	6.58 (–0.31 to 23.88)
GRZ18 + ELB18 (50 mg q.d.) + RBV18		11.19 (0.80 to 396.20)	6.14 (–0.85 to 22.29)
GRZ18 + ELB18 (50 mg q.d.) + RBV18	GRZ12 + ELB12 (50 mg q.d.) + RBV12	0.94 (0.17 to 5.08)	–0.43 (–16.03 to 15.16)
Random effect model	Residual deviance	54.11 vs. 51 data points	
	Deviance information criteria	299.747	
Fixed effect model	Residual deviance	56.99 vs. 51 data points	
	Deviance information criteria	300.661	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Sensitivity Analyses — Inclusion of the BOSON Study Data

TABLE 171: NAIVE GENOTYPE 3

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR 48	1.30 (1.21 to 1.37)	21.63 (14.70 to 25.93)
DCV12 + SOF12		1.36 (1.26 to 1.41)	25.98 (18.94 to 29.02)
SOF12 + PR12		1.36 (1.22 to 1.41)	25.51 (15.96 to 28.65)
DCV12 + SOF12	SOF24 + RBV24	1.05 (0.96 to 1.13)	4.16 (–3.40 to 11.34)
SOF12 + PR12		1.04 (0.96 to 1.10)	3.58 (–3.33 to 8.99)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + PR12	DCV12 + SOF12	1.00 (0.90 to 1.07)	–0.48 (–9.66 to 6.54)
Random effect model	Residual deviance	7.427 vs. 8 data points	
	Deviance information criteria	52.582	
Fixed effect model	Residual deviance	7.417 vs. 8 data points	
	Deviance information criteria	52.359	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Nalve Genotype 3 With Cirrhosis

TABLE 172: NAIVE SVR GENOTYPE 3 WITH CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.47 (1.09 to 1.68)	28.65 (5.13 to 39.15)
SOF12 + PR12		1.56 1.04 to 1.73)	34.09 (2.19 to 41.49)
SOF12 + PR12	SOF24 + RBV24	1.04 (0.79 to 1.30)	3.92 (–16.82 to 21.37)
Random effect model	Residual deviance	5.017 vs. 6 data points	
	Deviance information criteria	30.468	
Fixed effect model	Residual deviance	5.032 vs. 6 data points	
	Deviance information criteria	30.458	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Nalve Genotype 3 Without Cirrhosis

TABLE 173: NAIVE SVR GENOTYPE 3 WITHOUT CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR AL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	PR48	1.31 (1.17 to 1.46)	22.15 (12.40 to 29.92)
DCV12 + SOF12		1.37 (1.23 to 1.52)	26.25 (16.68 to 33.55)
SOF12 + PR12		1.36 (1.18 to 1.51)	25.69 (12.80 to 33.21)
DCV12 + SOF12	SOF24 + RBV24	1.04 (0.95 to 1.15)	4.14 (–4.73 to 12.46)
SOF12 + PR12		1.04 (0.93 to 1.12)	3.49 (–6.21 to 10.07)
SOF12 + PR12	DCV12 + SOF12	1.00 (0.87 to 1.09)	–0.37 (–13.04 to 7.98)
Random effect model	Residual deviance	7.445 vs. 8 data points	
	Deviance information criteria	43.972	
Fixed effect model	Residual deviance	7.47 vs. 8 data points	
	Deviance information criteria	43.798	

CrI = credible interval; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Sensitivity Analyses — Inclusion of the Turquoise-II Study
Naive Genotype 1 With Cirrhosis

TABLE 174: NAIVE GENOTYPE 1 WITH CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 + SOF12	PR48	2.22 (1.08 to 2.94)	48.99 (3.16 to 63.54)
T12 PR24-48 RGT q8		1.44 (0.74 to 2.21)	17.23 (–10.45 to 42.95)
T12 PR24-48 RGT q12		1.54 (0.66 to 2.38)	21.12 (–13.48 to 48.53)
SOF12 + PR12		2.09 (1.28 to 2.78)	43.29 (11.47 to 58.91)
SIM12 PR24-48 RGT		1.69 (1.08 to 2.40)	27.11 (3.34 to 47.28)
B24 PR28-48 RGT		0.66 (0.16 to 1.63)	–13.08 (–35.34 to 23.67)
SOF12 + SIM12 + RBV12		2.25 (0.41 to 3.00)	50.89 (–22.88 to 65.24)
SOF24 + RBV24		1.76 (0.66 to 2.59)	30.10 (–13.25 to 55.01)
DCV24 + ASU24		2.28 (1.69 to 2.95)	50.22 (29.77 to 62.37)
SOF12 + LDV12		2.44 (1.96 to 3.09)	56.51 (42.80 to 66.01)
SOF12 + LDV12 + RBV12		2.44 (1.96 to 3.09)	56.56 (43.48 to 65.87)
SOF24 + LDV24 + RBV24		2.45 (1.97 to 3.11)	56.93 (43.84 to 66.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.42 (1.94 to 3.06)	55.49 (42.85 to 64.82)
T12 PR24-48 RGT q8	SIM12 + SOF12	0.67 (0.36 to 1.24)	–28.78 (–57.23 to 10.88)
T12 PR24-48 RGT q12		0.72 (0.32 to 1.32)	–24.72 (–60.18 to 15.99)
SOF12 + PR12		0.94 (0.65 to 1.69)	–5.05 (–29.71 to 31.70)
SIM12 PR24-48 RGT		0.77 (0.49 to 1.61)	–20.19 (–47.71 to 26.43)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B24 PR28-48 RGT		0.31 (0.07 to 0.89)	–59.15 (–86.56 to –6.43)
SOF12 + SIM12 + RBV12		1.01 (0.22 to 1.57)	1.04 (–58.70 to 31.30)
SOF24 + RBV24		0.81 (0.32 to 1.54)	–16.87 (–59.14 to 25.23)
DCV24 + ASU24		1.01 (0.77 to 2.11)	0.65 (–22.00 to 48.31)
SOF12 + LDV12		1.07 (0.91 to 2.25)	6.61 (–8.60 to 53.08)
SOF12 + LDV12 + RBV12		1.07 (0.91 to 2.26)	6.43 (–8.47 to 53.01)
SOF24 + LDV24 + RBV24		1.08 (0.91 to 2.27)	7.19 (–8.10 to 53.26)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.91 to 2.23)	5.63 (–8.91 to 52.15)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	1.06 (0.64 to 1.52)	3.42 (–18.50 to 22.87)
SOF12 + PR12		1.42 (1.08 to 2.30)	23.84 (5.10 to 44.40)
SIM12 PR24-48 RGT		1.18 (0.66 to 2.47)	9.95 (–25.21 to 44.74)
B24 PR28-48 RGT		0.46 (0.11 to 1.42)	–29.48 (–64.33 to 15.89)
SOF12 + SIM12 + RBV12		1.49 (0.31 to 2.98)	29.33 (–37.44 to 61.92)
SOF24 + RBV24		1.19 (0.60 to 1.95)	11.04 (–20.30 to 37.40)
DCV24 + ASU24		1.57 (1.01 to 3.15)	32.45 (0.89 to 62.70)
SOF12 + LDV12		1.69 (1.15 to 3.37)	38.82 (11.78 to 67.90)
SOF12 + LDV12 + RBV12		1.69 (1.15 to 3.36)	38.93 (11.74 to 67.66)
SOF24 + LDV24 + RBV24		1.70 (1.15 to 3.35)	39.39 (12.21 to 67.49)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.67 (1.14 to 3.33)	38.02 (11.46 to 66.83)
SOF12 + PR12	T12 PR24-48 RGT q12	1.33 (0.95 to 2.68)	19.94 (–3.43 to 48.53)
SIM12 PR24-48 RGT		1.10 (0.62 to 2.71)	5.89 (–30.00 to 47.20)
B24 PR28-48 RGT		0.44 (0.10 to 1.43)	–32.68 (–69.24 to 14.99)
SOF12 + SIM12 + RBV12		1.40 (0.29 to 3.25)	25.53 (–41.27 to 64.49)
SOF24 + RBV24		1.12 (0.71 to 1.77)	7.29 (–14.57 to 29.48)
DCV24 + ASU24		1.47 (0.95 to 3.47)	28.34 (–4.18 to 64.84)
SOF12 + LDV12		1.58 (1.08 to 3.72)	34.99 (6.41 to 70.42)
SOF12 + LDV12 + RBV12		1.58 (1.08 to 3.71)	34.98 (6.44 to 70.18)
SOF24 + LDV24 + RBV24		1.59 (1.08 to 3.71)	35.55 (7.05 to 70.33)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.56 (1.07 to 3.66)	33.84 (5.76 to 69.04)
SIM12 PR24-48 RGT	SOF12 + PR12	0.82 (0.52 to 1.41)	–15.20 (–43.43 to 21.59)
B24 PR28-48 RGT		0.32 (0.08 to 0.87)	–54.62 (–82.04 to –8.07)
SOF12 + SIM12 + RBV12		1.08 (0.21 to 1.62)	6.51 (–62.09 to 35.08)
SOF24 + RBV24		0.85 (0.37 to 1.26)	–12.07 (–48.26 to 15.90)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.08 (0.82 to 1.79)	6.51 (–16.15 to 40.48)
SOF12 + LDV12		1.15 (0.95 to 1.91)	12.55 (–4.97 to 45.73)
SOF12 + LDV12 + RBV12		1.15 (0.95 to 1.90)	12.64 (–4.68 to 45.31)
SOF24 + LDV24 + RBV24		1.16 (0.95 to 1.90)	13.31 (–4.24 to 45.52)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.14 (0.95 to 1.88)	11.74 (–4.14 to 44.33)
B24 PR28-48 RGT	SIM12 PR24-48 RGT	0.39 (0.09 to 1.08)	–39.57 (–69.62 to 4.06)
SOF12 + SIM12 + RBV12		1.31 (0.24 to 2.06)	21.23 (–51.74 to 49.44)
SOF24 + RBV24		1.04 (0.38 to 1.78)	2.66 (–45.02 to 37.83)
DCV24 + ASU24		1.34 (0.94 to 2.08)	22.69 (–4.48 to 48.44)
SOF12 + LDV12		1.44 (1.09 to 2.20)	29.19 (7.64 to 52.79)
SOF12 + LDV12 + RBV12		1.44 (1.09 to 2.20)	29.16 (7.20 to 52.73)
SOF24 + LDV24 + RBV24		1.44 (1.10 to 2.20)	29.47 (7.91 to 53.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.42 (1.09 to 2.17)	28.10 (7.34 to 51.42)
SOF12 + SIM12 + RBV12	B24 PR28-48 RGT	3.19 (0.51 to 13.44)	60.22 (–18.66 to 88.99)
SOF24 + RBV24		2.58 (0.74 to 10.46)	41.22 (–12.10 to 76.76)
DCV24 + ASU24		3.43 (1.38 to 14.04)	62.40 (22.54 to 85.85)
SOF12 + LDV12		3.69 (1.51 to 15.07)	69.24 (31.18 to 90.33)
SOF12 + LDV12 + RBV12		3.68 (1.53 to 15.09)	69.04 (32.39 to 90.38)
SOF24 + LDV24 + RBV24		3.71 (1.53 to 15.13)	69.73 (32.37 to 90.58)
PAR/RIT12 + OMB12 + DAS12 + RBV12		3.66 (1.49 to 14.97)	68.41 (30.39 to 89.49)
SOF24 + RBV24	SOF12 + SIM12 + RBV12	0.81 (0.32 to 3.98)	–17.40 (–61.76 to 52.99)
DCV24 + ASU24		0.99 (0.77 to 5.48)	–1.08 (–22.14 to 73.62)
SOF12 + LDV12		1.05 (0.89 to 5.86)	4.67 (–11.21 to 78.43)
SOF12 + LDV12 + RBV12		1.05 (0.91 to 5.91)	4.32 (–8.88 to 78.88)
SOF24 + LDV24 + RBV24		1.06 (0.90 to 5.94)	5.74 (–9.71 to 78.89)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.04 (0.89 to 5.90)	3.84 (–10.90 to 78.47)
DCV24 + ASU24	SOF24 + RBV24	1.28 (0.88 to 3.50)	19.49 (–10.48 to 64.94)
SOF12 + LDV12		1.37 (1.00 to 3.79)	25.91 (–0.17 to 71.20)
SOF12 + LDV12 + RBV12		1.38 (0.99 to 3.76)	26.00 (–1.11 to 70.88)
SOF24 + LDV24 + RBV24		1.38 (1.00 to 3.74)	26.72 (0.23 to 70.13)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.36 (0.99 to 3.65)	25.06 (–0.49 to 68.39)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	DCV24 + ASU24	1.07 (0.91 to 1.36)	6.16 (–8.56 to 25.37)
SOF12 + LDV12 + RBV12		1.07 (0.92 to 1.35)	6.10 (–7.38 to 24.90)
SOF24 + LDV24 + RBV24		1.07 (0.92 to 1.37)	6.46 (–7.89 to 26.15)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.06 (0.91 to 1.36)	4.95 (–8.49 to 25.11)
SOF12 + LDV12 + RBV12	SOF12 + LDV12	1.00 (0.89 to 1.12)	0.01 (–10.24 to 9.81)
SOF24 + LDV24 + RBV24		1.00 (0.89 to 1.14)	0.42 (–10.75 to 12.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.88 to 1.14)	–1.20 (–12.06 to 12.13)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.00 (0.89 to 1.13)	0.41 (–10.85 to 11.39)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.87 to 1.14)	–1.17 (–12.32 to 12.08)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF24 + LDV24 + RBV24	0.98 (0.87 to 1.12)	–1.50 (–12.72 to 10.46)
Random effect model	Residual deviance	28.88 vs. 32 data points	
	Deviance information criteria	152.357	
Fixed effect model	Residual deviance	28.46 vs. 32 data points	
	Deviance information criteria	151.451	

ASU = asunaprevir; B = boceprevir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Experienced Genotype 1 With Cirrhosis

TABLE 175: EXPERIENCED GENOTYPE 1 WITH CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	4.51 (2.53 to 7.08)	58.42 (26.83 to 76.71)
SOF24 + LDV24		4.70 (1.63 to 7.45)	62.73 (10.44 to 81.67)
SOF12 + LDV12 + RBV12		4.83 (3.09 to 7.29)	63.58 (37.93 to 77.53)
SOF24 + LDV24 + RBV24		5.47 (3.44 to 8.07)	75.05 (44.14 to 84.77)
T12 PR48 q8		3.05 (1.37 to 5.60)	33.89 (6.18 to 63.84)
SIM12 PR24-48 RGT		3.59 (1.52 to 6.04)	42.77 (8.85 to 69.96)
SIM12 PR48		2.72 (0.85 to 5.46)	28.37 (–2.56 to 64.11)
B32 PR36-48 RGT		2.61 (0.69 to 6.00)	26.48 (–5.70 to 66.75)
DCV24 + ASU24		5.28 (3.32 to 7.98)	71.42 (43.13 to 83.06)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24 + PR24		5.51 (3.83 to 8.02)	74.74 (54.38 to 83.55)
SIM12 + SOF12		4.84 (1.91 to 7.64)	64.87 (15.51 to 83.65)
SOF12 + SIM12 + RBV12		4.66 (1.73 to 7.28)	61.72 (12.12 to 82.17)
SOF12 + PR12		2.98 (0.34 to 6.67)	32.67 (–10.89 to 79.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		5.49 (3.86 to 7.99)	74.22 (55.45 to 83.30)
SOF24 + LDV24	SOF12 + LDV12	1.04 (0.38 to 1.75)	3.43 (–47.02 to 36.64)
SOF12 + LDV12 + RBV12		1.06 (0.81 to 1.67)	4.47 (–15.10 to 30.90)
SOF24 + LDV24 + RBV24		1.19 (0.85 to 2.02)	14.51 (–11.84 to 45.66)
T12 PR48 q8		0.69 (0.29 to 1.40)	–23.34 (–58.61 to 19.94)
SIM12 PR24-48 RGT		0.80 (0.34 to 1.53)	–14.70 (–53.65 to 25.77)
SIM12 PR48		0.61 (0.19 to 1.37)	–29.12 (–66.25 to 18.63)
B32 PR36-48 RGT		0.59 (0.16 to 1.30)	–30.61 (–70.19 to 16.25)
DCV24 + ASU24		1.16 (0.81 to 1.93)	11.77 (–15.86 to 42.33)
DCV24 + ASU24 + PR24		1.21 (0.88 to 2.10)	15.66 (–9.96 to 48.09)
SIM12 + SOF12		1.08 (0.42 to 1.92)	5.92 (–47.07 to 43.14)
SOF12 + SIM12 + RBV12		1.04 (0.39 to 1.90)	2.83 (–49.17 to 42.99)
SOF12 + PR12		0.67 (0.08 to 1.57)	–24.14 (–75.15 to 30.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.20 (0.88 to 2.09)	15.33 (–10.22 to 47.81)
SOF12 + LDV12 + RBV12	SOF24 + LDV24	1.01 (0.75 to 2.63)	0.49 (–21.51 to 46.01)
SOF24 + LDV24 + RBV24		1.13 (0.77 to 3.26)	10.67 (–19.95 to 63.05)
T12 PR48 q8		0.67 (0.28 to 2.12)	–26.23 (–64.42 to 33.55)
SIM12 PR24-48 RGT		0.77 (0.33 to 2.36)	–18.33 (–59.11 to 39.97)
SIM12 PR48		0.60 (0.18 to 1.94)	–31.03 (–72.48 to 29.68)
B32 PR36-48 RGT		0.57 (0.16 to 1.78)	–33.21 (–73.71 to 25.99)
DCV24 + ASU24		1.10 (0.77 to 3.04)	7.86 (–20.32 to 57.56)
DCV24 + ASU24 + PR24		1.14 (0.85 to 3.32)	11.32 (–14.18 to 63.56)
SIM12 + SOF12		1.02 (0.43 to 3.03)	1.81 (–47.86 to 58.80)
SOF12 + SIM12 + RBV12		0.99 (0.37 to 2.88)	–0.65 (–54.04 to 55.36)
SOF12 + PR12		0.65 (0.08 to 2.32)	–25.99 (–79.48 to 43.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.14 (0.84 to 3.35)	11.14 (–14.73 to 63.36)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.13 (0.79 to 1.61)	10.50 (–17.15 to 35.34)
T12 PR48 q8		0.64 (0.28 to 1.19)	–28.95 (–61.37 to 11.94)
SIM12 PR24-48 RGT		0.75 (0.32 to 1.27)	–20.02 (–56.52 to 16.77)
SIM12 PR48		0.57 (0.18 to 1.18)	–34.30 (–69.24 to 11.28)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
B32 PR36-48 RGT		0.55 (0.15 to 1.07)	–35.52 (–70.76 to 5.13)
DCV24 + ASU24		1.09 (0.81 to 1.44)	7.23 (–15.08 to 26.60)
DCV24 + ASU24 + PR24		1.13 (0.86 to 1.66)	10.58 (–11.75 to 36.76)
SIM12 + SOF12		1.02 (0.40 to 1.55)	1.60 (–49.23 to 32.08)
SOF12 + SIM12 + RBV12		0.98 (0.36 to 1.57)	–1.72 (–53.01 to 33.30)
SOF12 + PR12		0.62 (0.07 to 1.33)	–29.83 (–77.29 to 22.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.13 (0.86 to 1.65)	10.23 (–11.99 to 36.62)
T12 PR48 q8	SOF24 + LDV24 + RBV24	0.57 (0.25 to 1.01)	–38.86 (–69.77 to 0.70)
SIM12 PR24-48 RGT		0.66 (0.29 to 1.11)	–30.66 (–66.42 to 7.25)
SIM12 PR48		0.50 (0.16 to 0.99)	–44.60 (–78.05 to –0.86)
B32 PR36-48 RGT		0.48 (0.13 to 1.03)	–46.37 (–81.13 to 2.13)
DCV24 + ASU24		0.97 (0.67 to 1.41)	–3.20 (–30.62 to 25.93)
DCV24 + ASU24 + PR24		1.00 (0.78 to 1.49)	–0.30 (–20.85 to 30.37)
SIM12 + SOF12		0.91 (0.35 to 1.39)	–8.13 (–61.05 to 25.12)
SOF12 + SIM12 + RBV12		0.87 (0.32 to 1.36)	–11.98 (–61.02 to 23.72)
SOF12 + PR12		0.56 (0.06 to 1.19)	–39.03 (–87.46 to 13.78)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.79 to 1.49)	–0.93 (–20.04 to 30.14)
SIM12 PR24-48 RGT	T12 PR48 q8	1.17 (0.45 to 2.91)	8.46 (–36.41 to 49.40)
SIM12 PR48		0.90 (0.44 to 1.40)	–5.21 (–26.30 to 16.21)
B32 PR36-48 RGT		0.85 (0.22 to 2.55)	–7.58 (–53.66 to 44.03)
DCV24 + ASU24		1.71 (0.94 to 3.92)	36.17 (–4.32 to 68.39)
DCV24 + ASU24 + PR24		1.79 (1.07 to 4.03)	40.02 (5.08 to 69.14)
SIM12 + SOF12		1.55 (0.58 to 3.61)	28.81 (–27.14 to 65.14)
SOF12 + SIM12 + RBV12		1.48 (0.54 to 3.53)	25.26 (–26.70 to 64.14)
SOF12 + PR12		0.98 (0.11 to 2.80)	–1.17 (–57.82 to 54.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.78 (1.06 to 4.02)	39.53 (4.61 to 68.69)
SIM12 PR48	SIM12 PR24-48 RGT	0.77 (0.22 to 2.15)	–13.61 (–57.72 to 36.60)
B32 PR36-48 RGT		0.74 (0.19 to 2.17)	–15.32 (–61.42 to 38.15)
DCV24 + ASU24		1.46 (0.87 to 3.38)	27.49 (–10.39 to 63.84)
DCV24 + ASU24 + PR24		1.53 (0.98 to 3.47)	31.30 (–1.36 to 65.41)
SIM12 + SOF12		1.34 (0.50 to 3.10)	20.80 (–35.64 to 59.95)
SOF12 + SIM12 + RBV12		1.28 (0.45 to 3.06)	17.06 (–37.79 to 59.95)
SOF12 + PR12		0.85 (0.09 to 2.40)	–8.81 (–65.52 to 48.03)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.52 (0.99 to 3.47)	30.78 (–0.87 to 65.30)
B32 PR36-48 RGT	SIM12 PR48	0.95 (0.24 to 3.79)	–1.98 (–52.32 to 50.45)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
DCV24 + ASU24		1.92 (0.95 to 6.31)	41.29 (–3.41 to 76.46)
DCV24 + ASU24 + PR24		2.02 (1.08 to 6.43)	45.63 (5.95 to 77.55)
SIM12 + SOF12		1.74 (0.60 to 5.71)	33.84 (–24.93 to 73.74)
SOF12 + SIM12 + RBV12		1.65 (0.59 to 5.48)	30.19 (–24.49 to 72.14)
SOF12 + PR12		1.08 (0.12 to 4.18)	3.77 (–56.75 to 63.60)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.01 (1.06 to 6.41)	45.16 (4.42 to 77.23)
DCV24 + ASU24	B32 PR36-48 RGT	1.98 (1.09 to 6.80)	42.35 (6.54 to 74.94)
DCV24 + ASU24 + PR24		2.09 (1.04 to 7.55)	47.18 (3.53 to 80.38)
SIM12 + SOF12		1.83 (0.62 to 6.50)	36.32 (–26.25 to 77.03)
SOF12 + SIM12 + RBV12		1.75 (0.53 to 6.77)	32.72 (–28.87 to 76.43)
SOF12 + PR12		1.17 (0.11 to 4.98)	7.01 (–59.26 to 66.88)
PAR/RIT12 + OMB12 + DAS12 + RBV12		2.08 (1.05 to 7.37)	46.80 (3.92 to 79.11)
DCV24 + ASU24 + PR24	DCV24 + ASU24	1.04 (0.80 to 1.50)	3.19 (–18.37 to 31.06)
SIM12 + SOF12		0.94 (0.38 to 1.40)	–5.61 (–55.35 to 25.84)
SOF12 + SIM12 + RBV12		0.90 (0.33 to 1.40)	–9.12 (–59.09 to 25.85)
SOF12 + PR12		0.57 (0.06 to 1.20)	–36.42 (–85.10 to 14.19)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.03 (0.81 to 1.49)	2.66 (–17.17 to 30.01)
SIM12 + SOF12	DCV24 + ASU24 + PR24	0.90 (0.36 to 1.21)	–9.01 (–58.59 to 16.18)
SOF12 + SIM12 + RBV12		0.87 (0.31 to 1.19)	–12.19 (–62.09 to 14.33)
SOF12 + PR12		0.55 (0.06 to 1.09)	–40.53 (–86.71 to 7.70)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.79 to 1.28)	–0.57 (–19.31 to 20.39)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.96 (0.39 to 2.28)	–3.00 (–51.73 to 46.78)
SOF12 + PR12		0.63 (0.11 to 1.05)	–25.91 (–64.46 to 3.51)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.11 (0.83 to 2.78)	8.64 (–15.79 to 58.01)
SOF12 + PR12	SOF12 + SIM12 + RBV12	0.67 (0.08 to 1.93)	–23.76 (–79.56 to 37.79)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.15 (0.84 to 3.11)	11.87 (–14.88 to 61.44)
PAR/RIT12 + OMB12 + DAS12 + RBV12	SOF12 + PR12	1.81 (0.91 to 16.03)	40.01 (–7.81 to 86.25)
Random effect model	Residual deviance	31.23 vs. 33 data points	
	Deviance information criteria	156.914	
Fixed effect model	Residual deviance	31.27 vs. 33 data points	

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
	Deviance information criteria	156.232	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Sensitivity Analysis — Inclusion of SOF8 + LDV8 Naive Genotype 1 Without Cirrhosis

TABLE 176: NAIVE GENOTYPE 1 WITHOUT CIRRHOSIS: RELATIVE RISKS AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + LDV12	PR48	1.97 (1.76 to 2.22)	47.71 (40.91 to 53.53)
SOF8 + LDV8 + RBV8		1.92 (1.64 to 2.18)	45.49 (33.11 to 52.30)
SOF12 + LDV12 + RBV12		1.96 (1.77 to 2.22)	47.51 (41.07 to 53.56)
SOF24 + LDV24 + RBV24		1.98 (1.77 to 2.24)	48.40 (41.27 to 54.40)
T12 PR24-48 RGT q8		1.55 (1.30 to 1.75)	27.13 (14.98 to 34.97)
T12 PR24-48 RGT q12		1.52 (1.21 to 1.75)	25.66 (10.44 to 34.87)
T12 PR48 q8		1.59 (1.00 to 2.05)	29.26 (–0.07 to 47.72)
SOF12 PR24-48 RGT		1.73 (1.27 to 2.05)	36.06 (13.41 to 47.98)
SIM12 PR24-48 RGT		1.59 (1.41 to 1.78)	29.04 (20.84 to 35.89)
B44 PR48		1.77 (1.42 to 2.09)	38.15 (21.13 to 49.07)
SOF24 + RBV24		1.62 (1.27 to 1.88)	30.93 (13.61 to 40.82)
PAR/RIT12 + OMB12 + DAS12		1.92 (1.25 to 2.22)	46.29 (12.07 to 54.12)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.94 (1.75 to 2.18)	46.18 (39.96 to 51.92)
DCV24 + ASU24		1.82 (1.64 to 2.03)	40.37 (33.61 to 46.16)
DCV12 + SOF12		1.88 (1.21 to 2.21)	44.13 (10.70 to 53.77)
SOF12 + PR12		1.74 (1.18 to 2.04)	36.50 (9.10 to 47.90)
B24 PR28-48 RGT		1.54 (1.27 to 1.77)	26.60 (13.33 to 36.16)
SIM12 + SOF12		1.78 (0.75 to 2.18)	39.03 (–12.52 to 52.99)
SOF12 + SIM12 + RBV12		1.73 (0.71 to 2.16)	36.30 (–14.91 to 52.57)
SOF8 + LDV8		1.93 (1.66 to 2.19)	45.90 (34.30 to 52.72)
SOF8 + LDV8 + RBV8	SOF12 + LDV12	0.98 (0.88 to 1.01)	–2.04 (–11.29 to 0.73)
SOF12 + LDV12 + RBV12		1.00 (0.95 to 1.04)	–0.09 (–4.68 to 4.12)
SOF24 + LDV24 + RBV24		1.01 (0.96 to 1.06)	0.64 (–4.35 to 5.36)
T12 PR24-48 RGT q8		0.79 (0.66 to 0.87)	–20.54 (–32.78 to –11.90)
T12 PR24-48 RGT q12		0.77 (0.62 to 0.87)	–21.98 (–37.03 to –12.89)
T12 PR48 q8		0.81 (0.53 to 0.98)	–18.37 (–45.37 to –1.81)
SOF12 PR24-48 RGT		0.88 (0.65 to 1.00)	–11.46 (–33.55 to –0.36)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.88)	–18.58 (–27.45 to –11.03)
B44 PR48		0.91 (0.73 to 1.00)	–9.18 (–26.11 to –0.10)
SOF24 + RBV24		0.83 (0.65 to 0.93)	–16.63 (–33.60 to –7.08)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.64 to 1.05)	–1.05 (–35.17 to 4.64)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.93 to 1.04)	–1.46 (–6.56 to 3.36)
DCV24 + ASU24		0.93 (0.85 to 0.99)	–7.26 (–14.21 to –1.13)
DCV12 + SOF12		0.97 (0.63 to 1.05)	–3.19 (–35.79 to 4.53)
SOF12 + PR12		0.88 (0.63 to 0.97)	–11.17 (–34.94 to –2.65)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–21.05 (–34.61 to –10.62)
SIM12 + SOF12		0.91 (0.39 to 1.04)	–8.71 (–59.08 to 4.03)
SOF12 + SIM12 + RBV12		0.88 (0.37 to 1.04)	–11.37 (–60.86 to 3.41)
SOF8 + LDV8		0.98 (0.89 to 1.01)	–1.51 (–10.06 to 1.16)
SOF12 + LDV12 + RBV12	SOF8 + LDV8 + RBV8	1.02 (0.96 to 1.16)	2.01 (–3.55 to 13.03)
SOF24 + LDV24 + RBV24		1.03 (0.97 to 1.17)	2.70 (–2.96 to 14.52)
T12 PR24-48 RGT q8		0.81 (0.68 to 0.94)	–18.11 (–30.65 to –5.53)
T12 PR24-48 RGT q12		0.80 (0.63 to 0.91)	–19.39 (–34.67 to –7.48)
T12 PR48 q8		0.83 (0.55 to 1.05)	–15.92 (–42.94 to 4.13)
SOF12 PR24-48 RGT		0.91 (0.67 to 1.07)	–8.90 (–31.62 to 6.30)
SIM12 PR24-48 RGT		0.83 (0.73 to 0.96)	–16.32 (–25.78 to –3.78)
B44 PR48		0.93 (0.75 to 1.08)	–6.78 (–24.07 to 6.71)
SOF24 + RBV24		0.85 (0.67 to 0.98)	–14.12 (–31.52 to –1.43)
PAR/RIT12 + OMB12 + DAS12		1.01 (0.65 to 1.15)	0.96 (–32.91 to 12.83)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.01 (0.95 to 1.15)	0.68 (–5.27 to 12.04)
DCV24 + ASU24		0.95 (0.87 to 1.09)	–5.06 (–12.77 to 7.23)
DCV12 + SOF12		0.99 (0.65 to 1.14)	–1.03 (–33.12 to 12.00)
SOF12 + PR12		0.91 (0.66 to 1.01)	–8.50 (–31.32 to 0.64)
B24 PR28-48 RGT		0.80 (0.66 to 0.95)	–18.64 (–32.48 to –4.21)
SIM12 + SOF12		0.93 (0.40 to 1.12)	–6.32 (–56.16 to 10.22)
SOF12 + SIM12 + RBV12		0.91 (0.38 to 1.12)	–8.82 (–58.60 to 9.99)
SOF8 + LDV8		1.00 (0.95 to 1.07)	0.37 (–4.69 to 6.29)
SOF24 + LDV24 + RBV24	SOF12 + LDV12 + RBV12	1.01 (0.95 to 1.06)	0.77 (–4.59 to 5.96)
T12 PR24-48 RGT q8		0.79 (0.66 to 0.88)	–20.37 (–32.70 to –11.87)
T12 PR24-48 RGT q12		0.78 (0.62 to 0.87)	–21.82 (–37.05 to –12.60)
T12 PR48 q8		0.81 (0.53 to 0.98)	–18.11 (–45.63 to –1.89)
SOF12 PR24-48 RGT		0.88 (0.66 to 0.99)	–11.21 (–32.88 to –0.61)
SIM12 PR24-48 RGT		0.81 (0.72 to 0.89)	–18.43 (–27.48 to –10.51)
B44 PR48		0.91 (0.73 to 1.00)	–9.16 (–25.98 to 0.31)
SOF24 + RBV24		0.83 (0.65 to 0.93)	–16.47 (–33.69 to –6.79)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
PAR/RIT12 + OMB12 + DAS12		0.99 (0.64 to 1.06)	–0.82 (–35.46 to 5.48)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.99 (0.93 to 1.04)	–1.35 (–6.65 to 3.74)
DCV24 + ASU24		0.93 (0.86 to 0.99)	–7.14 (–14.06 to –0.79)
DCV12 + SOF12		0.97 (0.63 to 1.05)	–3.03 (–35.66 to 4.70)
SOF12 + PR12		0.89 (0.61 to 0.99)	–10.98 (–37.05 to –0.67)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–20.91 (–34.62 to –10.38)
SIM12 + SOF12		0.91 (0.39 to 1.04)	–8.40 (–59.59 to 4.04)
SOF12 + SIM12 + RBV12		0.89 (0.37 to 1.04)	–11.10 (–61.18 to 3.30)
SOF8 + LDV8		0.98 (0.88 to 1.04)	–1.48 (–11.77 to 3.75)
T12 PR24-48 RGT q8	SOF24 + LDV24 + RBV24	0.78 (0.66 to 0.87)	–21.16 (–33.77 to –12.21)
T12 PR24-48 RGT q12		0.77 (0.61 to 0.87)	–22.62 (–38.18 to –12.73)
T12 PR48 q8		0.81 (0.52 to 0.97)	–18.89 (–46.63 to –2.66)
SOF12 PR24-48 RGT		0.88 (0.65 to 0.99)	–12.05 (–34.12 to –1.09)
SIM12 PR24-48 RGT		0.80 (0.71 to 0.88)	–19.25 (–28.34 to –11.14)
B44 PR48		0.90 (0.73 to 1.00)	–9.93 (–26.84 to –0.32)
SOF24 + RBV24		0.82 (0.64 to 0.92)	–17.27 (–34.67 to –7.24)
PAR/RIT12 + OMB12 + DAS12		0.98 (0.64 to 1.03)	–1.50 (–34.62 to 2.70)
PAR/RIT12 + OMB12 + DAS12 + RBV12		0.98 (0.92 to 1.04)	–2.14 (–7.56 to 3.33)
DCV24 + ASU24		0.92 (0.85 to 0.99)	–7.95 (–14.88 to –1.38)
DCV12 + SOF12		0.96 (0.63 to 1.04)	–3.68 (–36.47 to 3.55)
SOF12 + PR12		0.88 (0.61 to 0.99)	–11.70 (–37.97 to –1.13)
B24 PR28-48 RGT		0.78 (0.64 to 0.89)	–21.64 (–35.33 to –10.98)
SIM12 + SOF12		0.91 (0.39 to 1.03)	–9.21 (–59.94 to 2.85)
SOF12 + SIM12 + RBV12		0.88 (0.37 to 1.02)	–11.92 (–61.96 to 2.15)
SOF8 + LDV8		0.98 (0.86 to 1.03)	–2.13 (–13.24 to 3.11)
T12 PR24-48 RGT q12	T12 PR24-48 RGT q8	0.98 (0.83 to 1.11)	–1.38 (–13.09 to 7.70)
T12 PR48 q8		1.03 (0.66 to 1.34)	2.48 (–27.10 to 22.75)
SOF12 PR24-48 RGT		1.12 (0.82 to 1.38)	9.13 (–14.15 to 24.96)
SIM12 PR24-48 RGT		1.03 (0.90 to 1.23)	1.95 (–8.39 to 14.84)
B44 PR48		1.14 (0.91 to 1.40)	11.08 (–6.83 to 26.32)
SOF24 + RBV24		1.05 (0.86 to 1.22)	3.79 (–10.93 to 15.09)
PAR/RIT12 + OMB12 + DAS12		1.24 (0.81 to 1.50)	18.80 (–15.00 to 32.41)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.25 (1.14 to 1.47)	19.06 (11.42 to 30.23)
DCV24 + ASU24		1.17 (1.04 to 1.41)	13.20 (3.58 to 26.05)
DCV12 + SOF12		1.22 (0.79 to 1.48)	16.79 (–16.40 to 31.15)
SOF12 + PR12		1.12 (0.77 to 1.37)	9.21 (–17.63 to 24.81)
B24 PR28-48 RGT		0.99 (0.81 to 1.22)	–0.48 (–15.00 to 14.90)
SIM12 + SOF12		1.15 (0.49 to 1.47)	11.45 (–39.01 to 30.67)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.12 (0.47 to 1.45)	9.07 (–41.63 to 29.88)
SOF8 + LDV8		1.24 (1.08 to 1.48)	18.61 (6.57 to 31.21)
T12 PR48 q8	T12 PR24-48 RGT q12	1.05 (0.67 to 1.42)	4.06 (–26.43 to 26.41)
SOF12 PR24-48 RGT		1.14 (0.83 to 1.47)	10.64 (–12.77 to 29.04)
SIM12 PR24-48 RGT		1.05 (0.91 to 1.31)	3.39 (–7.01 to 18.59)
B44 PR48		1.17 (0.92 to 1.49)	12.69 (–6.06 to 30.07)
SOF24 + RBV24		1.07 (0.94 to 1.22)	5.10 (–4.34 to 14.24)
PAR/RIT12 + OMB12 + DAS12		1.26 (0.83 to 1.60)	20.11 (–12.95 to 36.32)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.28 (1.16 to 1.56)	20.57 (13.08 to 33.24)
DCV24 + ASU24		1.20 (1.05 to 1.51)	14.61 (4.39 to 30.41)
DCV12 + SOF12		1.24 (0.80 to 1.58)	17.99 (–15.02 to 35.32)
SOF12 + PR12		1.14 (0.80 to 1.44)	10.57 (–15.43 to 27.51)
B24 PR28-48 RGT		1.01 (0.83 to 1.30)	0.88 (–13.62 to 18.79)
SIM12 + SOF12		1.17 (0.50 to 1.57)	12.87 (–37.66 to 34.98)
SOF12 + SIM12 + RBV12		1.14 (0.48 to 1.55)	10.45 (–39.15 to 33.94)
SOF8 + LDV8		1.26 (1.11 to 1.59)	19.91 (8.51 to 35.08)
SOF12 PR24-48 RGT	T12 PR48 q8	1.08 (0.77 to 1.68)	6.29 (–19.97 to 35.95)
SIM12 PR24-48 RGT		1.00 (0.79 to 1.56)	–0.29 (–19.73 to 28.86)
B44 PR48		1.11 (0.84 to 1.73)	8.71 (–14.79 to 38.23)
SOF24 + RBV24		1.01 (0.75 to 1.60)	1.11 (–22.11 to 31.45)
PAR/RIT12 + OMB12 + DAS12		1.19 (0.77 to 1.87)	15.50 (–18.72 to 44.78)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.21 (1.00 to 1.87)	16.66 (0.36 to 44.55)
DCV24 + ASU24		1.14 (0.92 to 1.76)	10.93 (–7.02 to 39.07)
DCV12 + SOF12		1.16 (0.88 to 1.67)	12.80 (–8.81 to 36.07)
SOF12 + PR12		1.08 (0.73 to 1.67)	6.59 (–23.46 to 35.61)
B24 PR28-48 RGT		0.96 (0.73 to 1.53)	–2.81 (–24.52 to 27.51)
SIM12 + SOF12		1.11 (0.46 to 1.79)	8.80 (–45.70 to 42.11)
SOF12 + SIM12 + RBV12		1.08 (0.43 to 1.76)	6.49 (–48.13 to 40.49)
SOF8 + LDV8		1.21 (0.96 to 1.84)	16.26 (–3.23 to 43.34)
SIM12 PR24-48 RGT	SOF12 PR24-48 RGT	0.92 (0.78 to 1.25)	–7.08 (–20.80 to 16.11)
B44 PR48		1.02 (0.81 to 1.39)	2.05 (–17.55 to 25.43)
SOF24 + RBV24		0.94 (0.72 to 1.28)	–5.48 (–25.15 to 18.27)
PAR/RIT12 + OMB12 + DAS12		1.10 (0.73 to 1.50)	9.07 (–23.26 to 32.12)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.12 (0.99 to 1.51)	9.86 (–0.92 to 32.26)
DCV24 + ASU24		1.05 (0.92 to 1.41)	4.10 (–7.78 to 26.26)
DCV12 + SOF12		1.08 (0.72 to 1.46)	7.14 (–24.72 to 30.16)
SOF12 + PR12		1.01 (0.67 to 1.37)	0.51 (–29.62 to 24.46)
B24 PR28-48 RGT		0.89 (0.71 to 1.22)	–9.46 (–26.13 to 14.55)
SIM12 + SOF12		1.03 (0.44 to 1.43)	2.67 (–48.90 to 28.71)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + SIM12 + RBV12		1.00 (0.42 to 1.39)	0.16 (–50.08 to 26.36)
SOF8 + LDV8		1.11 (0.94 to 1.50)	9.47 (–5.18 to 31.79)
B44 PR48	SIM12 PR24-48 RGT	1.12 (0.89 to 1.31)	9.12 (–8.64 to 21.82)
SOF24 + RBV24		1.02 (0.80 to 1.18)	1.90 (–15.54 to 13.20)
PAR/RIT12 + OMB12 + DAS12		1.21 (0.78 to 1.39)	16.94 (–17.24 to 27.52)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.22 (1.12 to 1.37)	17.11 (9.65 to 25.63)
DCV24 + ASU24		1.14 (1.03 to 1.29)	11.34 (2.63 to 20.37)
DCV12 + SOF12		1.19 (0.77 to 1.37)	15.00 (–18.25 to 26.48)
SOF12 + PR12		1.09 (0.75 to 1.28)	7.35 (–19.45 to 20.60)
B24 PR28-48 RGT		0.97 (0.79 to 1.13)	–2.43 (–16.54 to 9.75)
SIM12 + SOF12		1.12 (0.48 to 1.36)	9.79 (–40.96 to 25.98)
SOF12 + SIM12 + RBV12		1.09 (0.46 to 1.35)	7.30 (–43.27 to 25.30)
SOF8 + LDV8		1.21 (1.06 to 1.37)	16.76 (4.88 to 26.34)
SOF24 + RBV24	B44 PR48	0.92 (0.71 to 1.16)	–7.30 (–26.74 to 11.93)
PAR/RIT12 + OMB12 + DAS12		1.08 (0.70 to 1.35)	7.33 (–26.49 to 25.01)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.09 (0.98 to 1.35)	7.89 (–1.83 to 24.60)
DCV24 + ASU24		1.02 (0.91 to 1.26)	2.07 (–8.67 to 18.93)
DCV12 + SOF12		1.06 (0.69 to 1.33)	5.59 (–27.94 to 23.76)
SOF12 + PR12		0.98 (0.67 to 1.24)	–1.86 (–29.55 to 17.98)
B24 PR28-48 RGT		0.87 (0.70 to 1.10)	–11.46 (–27.66 to 7.28)
SIM12 + SOF12		1.01 (0.43 to 1.32)	0.63 (–51.27 to 23.29)
SOF12 + SIM12 + RBV12		0.98 (0.41 to 1.28)	–2.02 (–52.17 to 21.01)
SOF8 + LDV8		1.08 (0.93 to 1.34)	7.30 (–6.22 to 24.63)
PAR/RIT12 + OMB12 + DAS12	SOF24 + RBV24	1.18 (0.77 to 1.52)	14.66 (–18.37 to 32.95)
PAR/RIT12 + OMB12 + DAS12 + RBV12		1.19 (1.08 to 1.49)	15.20 (6.84 to 30.75)
DCV24 + ASU24		1.12 (0.98 to 1.43)	9.37 (–1.46 to 27.17)
DCV12 + SOF12		1.16 (0.76 to 1.50)	12.72 (–20.48 to 31.75)
SOF12 + PR12		1.07 (0.74 to 1.37)	5.44 (–21.55 to 24.18)
B24 PR28-48 RGT		0.95 (0.77 to 1.23)	–4.35 (–19.53 to 14.91)
SIM12 + SOF12		1.09 (0.47 to 1.47)	7.50 (–42.91 to 30.67)
SOF12 + SIM12 + RBV12		1.06 (0.45 to 1.46)	5.13 (–44.85 to 29.85)
SOF8 + LDV8		1.18 (1.03 to 1.51)	14.65 (2.38 to 32.10)
PAR/RIT12 + OMB12 + DAS12 + RBV12	PAR/RIT12 + OMB12 + DAS12	0.99 (0.93 to 1.55)	–0.58 (–6.86 to 33.84)
DCV24 + ASU24		0.94 (0.86 to 1.46)	–6.10 (–14.18 to 28.36)
DCV12 + SOF12		0.98 (0.64 to 1.50)	–1.57 (–34.34 to 31.10)
SOF12 + PR12		0.91 (0.63 to 1.38)	–8.83 (–35.20 to 23.85)
B24 PR28-48 RGT		0.80 (0.65 to 1.24)	–19.14 (–33.76 to 15.28)
SIM12 + SOF12		0.93 (0.40 to 1.43)	–6.30 (–56.43 to 27.08)
SOF12 + SIM12 + RBV12		0.91 (0.38 to 1.35)	–8.39 (–59.10 to 23.55)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF8 + LDV8		1.00 (0.88 to 1.53)	–0.42 (–11.63 to 33.10)
DCV24 + ASU24	PAR/RIT12 + OMB12 + DAS12 + RBV12	0.94 (0.87 to 1.01)	–5.77 (–12.59 to 0.43)
DCV12 + SOF12		0.98 (0.64 to 1.07)	–1.63 (–34.37 to 6.19)
SOF12 + PR12		0.90 (0.62 to 1.01)	–9.64 (–36.36 to 1.33)
B24 PR28-48 RGT		0.80 (0.65 to 0.91)	–19.56 (–33.04 to –8.94)
SIM12 + SOF12		0.92 (0.40 to 1.07)	–7.22 (–57.83 to 6.01)
SOF12 + SIM12 + RBV12		0.90 (0.38 to 1.06)	–9.79 (–59.84 to 5.42)
SOF8 + LDV8		1.00 (0.89 to 1.06)	–0.15 (–10.93 to 5.54)
DCV12 + SOF12	DCV24 + ASU24	1.04 (0.68 to 1.16)	3.85 (–28.79 to 13.49)
SOF12 + PR12		0.96 (0.66 to 1.10)	–3.85 (–30.79 to 8.28)
B24 PR28-48 RGT		0.85 (0.70 to 0.97)	–13.75 (–27.42 to –2.66)
SIM12 + SOF12		0.98 (0.42 to 1.15)	–1.35 (–52.52 to 12.76)
SOF12 + SIM12 + RBV12		0.96 (0.40 to 1.14)	–3.96 (–54.24 to 11.93)
SOF8 + LDV8		1.06 (0.93 to 1.16)	5.55 (–6.26 to 13.07)
SOF12 + PR12	DCV12 + SOF12	0.93 (0.64 to 1.40)	–6.94 (–34.63 to 25.19)
B24 PR28-48 RGT		0.82 (0.66 to 1.26)	–17.06 (–33.02 to 15.98)
SIM12 + SOF12		0.96 (0.40 to 1.45)	–4.16 (–56.85 to 28.96)
SOF12 + SIM12 + RBV12		0.93 (0.38 to 1.45)	–6.45 (–58.50 to 28.29)
SOF8 + LDV8		1.02 (0.89 to 1.55)	1.45 (–11.09 to 34.02)
B24 PR28-48 RGT	SOF12 + PR12	0.89 (0.71 to 1.30)	–9.79 (–26.08 to 18.17)
SIM12 + SOF12		1.02 (0.45 to 1.52)	1.99 (–46.60 to 32.52)
SOF12 + SIM12 + RBV12		1.00 (0.44 to 1.47)	–0.21 (–48.00 to 29.96)
SOF8 + LDV8		1.10 (1.00 to 1.54)	8.96 (–0.01 to 32.16)
SIM12 + SOF12	B24 PR28-48 RGT	1.16 (0.49 to 1.49)	12.00 (–39.32 to 31.46)
SOF12 + SIM12 + RBV12		1.12 (0.47 to 1.47)	9.51 (–41.77 to 30.38)
SOF8 + LDV8		1.25 (1.07 to 1.52)	19.05 (5.42 to 32.90)
SOF12 + SIM12 + RBV12	SIM12 + SOF12	0.98 (0.46 to 2.06)	–2.09 (–47.38 to 45.20)
SOF8 + LDV8		1.08 (0.91 to 2.51)	6.79 (–9.02 to 56.80)
SOF8 + LDV8	SOF12 + SIM12 + RBV12	1.11 (0.91 to 2.64)	9.22 (–8.75 to 59.31)
Random effect model	Residual deviance	59.55 vs. 63 data points	
	Deviance information criteria	355.779	
Fixed effect model	Residual deviance	61.93 vs. 63 data points	
	Deviance information criteria	355.412	

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 177: NAIVE SVR GENOTYPE 4 NON-CIRRHOTIC WITH SOF12 PR12 ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	1.12 (0.17 to 1.52)	8.00 (–54.10 to 33.38)
SOF24 + RBV24		1.27 (0.90 to 1.47)	17.41 (–6.87 to 30.08)
SOF12 PR12		1.48 (1.27 to 1.55)	31.41 (17.51 to 35.32)
SOF24 + RBV24	SOF12 + RBV12	1.12 (0.77 to 7.01)	8.58 (–20.31 to 67.59)
SOF12 PR12		1.31 (0.94 to 8.84)	22.55 (–6.16 to 85.03)
SOF12 PR12	SOF24 + RBV24	1.16 (0.96 to 1.64)	13.27 (–4.10 to 37.77)
Random effect model	Residual deviance	5.703 vs. 6 data points	
	Deviance information criteria	35.428	
Fixed effect model	Residual deviance	5.68 vs. 6 data points	
	Deviance information criteria	35.411	

CrI = credible interval; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 178: NAIVE SVR GENOTYPE 4 WITH PEARL-I STUDY ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODE

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	0.96 (0.11 to 1.79)	–2.20 (–46.32 to 40.99)
SOF24 + RBV24		1.63 (1.18 to 1.84)	32.34 (9.37 to 43.15)
SOF12 PR12		1.86 (1.58 to 1.94)	44.36 (29.77 to 48.16)
PAR/RIT12 + OMB12 + RBV12		1.88 (1.69 to 1.95)	45.55 (35.58 to 48.40)
SOF24 + RBV24	SOF12 + RBV12	1.66 (0.91 to 13.95)	32.68 (–7.50 to 76.27)
SOF12 PR12		1.91 (1.01 to 17.52)	45.24 (0.73 to 90.29)
PAR/RIT12 + OMB12 + RBV12		1.95 (1.04 to 17.79)	46.92 (3.61 to 91.27)
SOF12 PR12	SOF24 + RBV24	1.14 (0.94 to 1.55)	11.40 (–5.49 to 33.95)
PAR/RIT12 + OMB12 + RBV12		1.15 (0.99 to 1.57)	12.63 (–0.92 to 35.05)
PAR/RIT12 + OMB12 + RBV12	SOF12 PR12	1.01 (0.91 to 1.18)	1.03 (–8.76 to 15.24)
Random effect model	Residual deviance	7.617 vs. 8 data points	
	Deviance information criteria	52.445	
Fixed effect model	Residual deviance	7.601 vs. 8 data points	
	Deviance information criteria	52.425	

CrI = credible interval; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 179: NAIVE SVR GENOTYPE 4 NON-CIRRHOTIC WITH PEARL-I STUDY ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	1.17 (0.18 to 1.52)	11.24 (–53.32 to 33.61)
SOF24 + RBV24		1.27 (0.89 to 1.47)	17.83 (–7.15 to 30.20)
PAR/RIT12 + OMB12 + RBV12		1.50 (1.34 to 1.56)	32.29 (21.98 to 35.52)
SOF24 + RBV24	SOF12 + RBV12	1.08 (0.76 to 6.43)	6.36 (–21.66 to 67.74)
PAR/RIT12 + OMB12 + RBV12		1.26 (0.96 to 8.29)	20.18 (–3.57 to 84.75)
PAR/RIT12 + OMB12 + RBV12	SOF24 + RBV24	1.17 (0.99 to 1.66)	13.76 (–0.95 to 38.68)
Random effect model	Residual deviance	5.74 vs. 6 data points	
	Deviance information criteria	35.569	
Fixed effect model	Residual deviance	5.672 vs. 6 data points	
	Deviance information criteria	35.413	

CrI = credible interval; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus. Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 180: TREATMENT-EXPERIENCED SVR GENOTYPE 4 WITH PEARL-I STUDY ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.42 (0.87 to –1.91)	26.15 (–8.41 to –44.97)
DCV24 + ASU24 + PR24		1.56 (1.22 to –2.03)	33.97 (14.58 to –48.90)
PAR/RIT12 + OMB12 + RBV12		1.60 (1.29 to –2.07)	36.23 (20.33 to –50.52)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.08 (0.87 to –1.76)	7.18 (–12.45 to –41.20)
PAR/RIT12 + OMB12 + RBV12		1.11 (0.94 to –1.79)	9.51 (–6.08 to –42.99)
PAR/RIT12 + OMB12 + RBV12	DCV24 + ASU24 + PR24	1.02 (0.90 to –1.23)	1.86 (–9.40 to –18.32)
Random effect model	Residual deviance	5.834 vs. 6 data points	
	Deviance information criteria	28.416	
Fixed effect model	Residual deviance	5.796 vs. 6 data points	
	Deviance information criteria	28.342	

CrI = credible interval; DCV = daclatasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 181: TREATMENT-EXPERIENCED SVR GENOTYPE 4 NON-CIRRHOTIC WITH PEARL-I STUDY ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF24 + RBV24	SOF12 + RBV12	1.28 (0.65 to 1.80)	18.25 (–23.26 to 41.13)
DCV24 + ASU24 + PR24		1.48 (1.12 to 1.97)	30.62 (8.48 to 47.67)
PAR/RIT12 + OMB12 + RBV12		1.52 (1.22 to 2.01)	33.14 (16.45 to 49.27)
DCV24 + ASU24 + PR24	SOF24 + RBV24	1.14 (0.85 to 2.26)	11.80 (–13.97 to 53.31)
PAR/RIT12 + OMB12 + RBV12		1.17 (0.95 to 2.32)	14.30 (–4.57 to 55.51)
PAR/RIT12 + OMB12 + RBV12	DCV24 + ASU24 + PR24	1.02 (0.89 to 1.30)	1.85 (–10.33 to 22.53)
Random effect model	Residual deviance	5.64 vs. 6 data points	
	Deviance information criteria	26.51	
Fixed effect model	Residual deviance	5.738 vs. 6 data points	
	Deviance information criteria	26.686	

CrI = credible interval; DCV = daclatasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RIT = ritonavir; RR = relative risk; SOF = sofosbuvir; SVR = sustained virologic response; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 182: NAIVE SVR GENOTYPE 4 ALL (INCLUDING EMERGING TREATMENTS) WITH PEARL-I STUDY ADDED: ODDS RATIOS, RELATIVE RISKS, AND RISK DIFFERENCE FOR ALL TREATMENT COMPARISONS — RANDOM EFFECTS MODEL

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
SOF12 + RBV12	PR 48	0.99 (0.05 to 1.81)	–0.63 (–49.08 to 41.91)
SOF24 + RBV24		1.63 (1.19 to 1.84)	32.32 (9.57 to 43.30)
SOF12 PR12		1.86 (1.57 to 1.94)	44.23 (29.44 to 48.04)
GRZ12 + ELB12		1.82 (1.41 to 1.93)	42.18 (21.06 to 47.78)
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)		1.82 (1.29 to 1.94)	42.41 (15.18 to 48.18)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)		1.80 (1.20 to 1.93)	41.56 (10.28 to 47.98)
PAR/RIT12 + OMB12 + RBV12		1.88 (1.67 to 1.94)	45.50 (34.55 to 48.19)
SOF24 + RBV24	SOF12 + RBV12	1.61 (0.91 to 30.18)	30.98 (–7.97 to 79.42)
SOF12 PR12		1.85 (1.00 to 36.30)	43.58 (–0.13 to 93.91)
GRZ12 + ELB12		1.81 (0.94 to 33.51)	41.30 (–5.12 to 90.31)
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)		1.79 (0.90 to 35.42)	40.55 (–8.51 to 92.88)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)		1.78 (0.87 to 33.49)	39.86 (–11.37 to 91.18)
PAR/RIT12 + OMB12 + RBV12		1.89 (1.02 to 36.00)	45.33 (2.01 to 94.13)
SOF12 PR12	SOF24 + RBV24	1.13 (0.94 to 1.54)	11.15 (–5.06 to 33.90)

TREATMENT	REFERENCE	RR (95% CRI)	RD % (95% CRL)
GRZ12 + ELB12		1.11 (0.85 to 1.52)	9.14 (–13.20 to 32.38)
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)		1.11 (0.79 to 1.52)	9.26 (–18.23 to 32.88)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)		1.10 (0.74 to 1.51)	8.27 (–22.94 to 32.02)
PAR/RIT12 + OMB12 + RBV12		1.15 (0.98 to 1.57)	12.51 (–1.53 to 35.34)
GRZ12 + ELB12	SOF12 PR12	0.98 (0.77 to 1.16)	–1.81 (–22.38 to 13.16)
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)		0.98 (0.70 to 1.16)	–1.53 (–28.64 to 13.45)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)		0.98 (0.65 to 1.15)	–2.30 (–32.90 to 12.68)
PAR/RIT12 + OMB12 + RBV12		1.01 (0.90 to 1.19)	1.09 (–9.81 to 15.70)
DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	GRZ12 + ELB12	1.00 (0.72 to 1.28)	0.25 (–26.09 to 20.99)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)		0.99 (0.68 to 1.27)	–0.61 (–29.98 to 20.32)
PAR/RIT12 + OMB12 + RBV12		1.03 (0.91 to 1.33)	3.01 (–8.42 to 23.88)
DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	1.00 (0.68 to 1.37)	–0.46 (–30.12 to 25.47)
PAR/RIT12 + OMB12 + RBV12		1.03 (0.91 to 1.43)	2.62 (–8.82 to 29.15)
PAR/RIT12 + OMB12 + RBV12	DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	1.04 (0.91 to 1.55)	3.36 (–8.70 to 34.44)
Random effect model	Residual deviance	12.15 vs. 13 data points	
	Deviance information criteria	83.193	
Fixed effect model	Residual deviance	11.96 vs. 13 data points	
	Deviance information criteria	82.865	

ASU = asunaprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 13: DETAILED RESULTS FOR OTHER OUTCOMES

Treatment-Naive

TABLE 183: WITHDRAWALS — ALL-CAUSE(S)

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	N	N	%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	34	371	9%
		(33) T12 PR24-48 RGT q12	40	369	11%
Dieterich et al., 2014-1	1	(42) SIM12 PR24-48 RGT	4	53	8%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	1	209	0%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	100	0%
Fried et al., 2013 PILLAR	1	(1) PR48	6	77	8%
		(42) SIM12 PR24-48 RGT	7	77	9%
Gane et al., 2013-1[a] ELECTRON	2+3	(3) SOF12 + RBV12	0	4	0%
		(40) SOF12 + PR12	0	4	0%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	25	0%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	10	130	8%
		(42) SIM12 PR24-48 RGT	21	264	8%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	36	361	10%
		(32) T12 PR24-48 RGT q8	35	363	10%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	12	216	6%
		(8) SOF8 + LDV8	13	215	6%
		(9) SOF8 + LDV8 + RBV8	16	216	7%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	4	52	8%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	38	3%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	1	19	5%
		(8) SOF8 + LDV8	0	20	0%
		(9) SOF8 + LDV8 + RBV8	0	21	0%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	12	26	46%
		(41) SOF12 PR24-48 RGT	5	47	11%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	1	25	4%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	36	327	11%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	39	256	15%
		(70) PR24	88	243	36%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	N	N	%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	1	205	0%
Manns et al., 2014 QUEST-2	1	(1) PR48	17	134	13%
		(42) SIM12 PR24-48 RGT	12	257	5%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	6	82	7%
		(33) T12 PR24-48 RGT q12	6	79	8%
Mizokami et al. et al., 2015	1	(6) SOF12 + LDV12	0	83	0%
		(10) SOF12 + LDV12 + RBV12	2	83	2%
Molina et al., 2015-1 PHOTON-2	1	(4) SOF24 + RBV24	2	112	2%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	0	19	0%
Molina et al., 2015-3 PHOTON-2	3	(4) SOF24 + RBV24	2	57	4%
Molina et al., 2015-4 PHOTON-2	4	(4) SOF24 + RBV24	0	31	0%
Omata et al., 2014	2	(3) SOF12 + RBV12	0	90	0%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	1	10	10%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	1	25	4%
		(71) SOF24 + RBV (low dose) 24	3	25	12%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	1	50	2%
Poordad et al., 2011 SPRINT2	1	(1) PR48	128	363	35%
		(46) B24 PR28-48 RGT	78	368	21%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	4	23	17%
Sulkowski et al., 2014	1+2+3	(3) SOF12 + RBV12	5	26	19%
		(4) SOF24 + RBV24	28	115	24%
Sulkowski et al., 2013-1	1	(1) PR48	2	7	29%
		(39) T12 PR48 q8	1	7	14%
Sulkowski et al., 2013-2	1	(1) PR48	1	8	13%
		(39) T12 PR48 q8	3	15	20%
Sulkowski et al., 2013	1	(1) PR48	7	34	21%
		(50) B44 PR48	8	64	13%
Zeuzem et al., 2015 C-EDGE	1+4+6	(22) GRZ12 + ELB12	3	316	1%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Only the number of withdrawals from genotype 2 participants is reported.

TABLE 184: WITHDRAWAL DUE TO ADVERSE EVENT

AUTHOR, YEAR, STU¬DY NAME	GENOTYPE	TREATMENT	n	N	%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	1	371	0%
		(33) T12 PR24-48 RGT q12	0	369	0%
Dieterich et al., 2014-1	1	42) SIM12 PR24-48 RGT	0	53	0%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	209	0%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	100	0%
Fried et al., 2013 PILLAR	1	(1) PR48	1	77	1%
		(42) SIM12 PR24-48 RGT	1	77	1%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	0	10	0%
		(40) SOF12 + PR12	0	11	0%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	25	0%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	1	52	2%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	0	216	0%
		(8) SOF8 + LDV8	0	215	0%
		(9) SOF8 + LDV8 + RBV8	0	216	0%
Lalezari et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	38	3%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	1	327	0%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
		(8) SOF8 + LDV8	0	20	0%
		(9) SOF8 + LDV8 + RBV8	0	21	0%
Manns et al., 2014 QUEST-2	1	(1) PR48	0	134	0%
		(42) SIM12 PR24-48 RGT	0	257	0%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%
		(71) SOF24 + RBV (low dose) 24	0	25	0%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	1	68	1%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	0	115	0%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%
Zeuzem et al., 2015 C-EDGE	1+4+6	(22) GRZ12 + ELB12	3	316	1%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for genotype 3, (3) SOF12 + RBV12, are included.

TABLE 185: DISCONTINUATION — ALL-CAUSE(S)

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	2	214	1%
		(7) SOF24 + LDV24	9	217	4%
		(10) SOF12 + LDV12 + RBV12	4	217	2%
		(11) SOF24 + LDV24 + RBV24	12	217	6%
Dieterich et al., 2014-1	1	(42) SIM12 PR24-48 RGT	9	53	17%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	9	473	2%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	1	209	0%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	100	0%
Fried et al., 2013 PILLAR	1	(1) PR48	10	77	13%
		(42) SIM12 PR24-48 RGT	12	77	16%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	0	10	0%
		(40) SOF12 + PR12	1	11	9%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%
Hassanein et al., 2015	4	(52) DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	0	11	0%
		(53) DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	0	10	0%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	159	361	44%
		(32) T12 PR24-48 RGT q8	95	363	26%
Kohli et al., 2015	1	(6) SOF12 + LDV12	0	20	0%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	5	216	2%
		(8) SOF8 + LDV8	0	215	0%
		(9) SOF8 + LDV8 + RBV8	3	216	1%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	5	52	10%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	14	135	10%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	38	3%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	7	327	2%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	11	256	4%
		(70) PR24	54	243	22%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	1	19	5%
		(8) SOF8 + LDV8	0	20	0%
		(9) SOF8 + LDV8 + RBV8	0	21	0%
Lawitz et al., 2013 PROTON-1	1	(1) PR48	11	26	42%
		(41) SOF12 PR24-48 RGT	5	47	11%
Lawitz et al., 2013 PROTON-2	2+3	(40) SOF12 + PR12	1	25	4%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	15	205	7%
Manns et al., 2014 QUEST-2	1	(1) PR48	53	134	40%
		(42) SIM12 PR24-48 RGT	22	257	9%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	14	82	17%
		(33) T12 PR24-48 RGT q12	19	79	24%
Mizokami et al. et al., 2015	1	(6) SOF12 + LDV12	0	83	0%
		(10) SOF12 + LDV12 + RBV12	2	83	2%
Molina et al., 2015-1 PHOTON-2	1	(4) SOF24 + RBV24	6	112	5%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	0	19	0%
Molina et al., 2015-3 PHOTON-2	3	(4) SOF24 + RBV24	3	57	5%
Molina et al., 2015-4 PHOTON-2	4	(4) SOF24 + RBV24	0	31	0%
Muir et al. et al., 2015 UNITY-2	1+6	(25) DCV12 + ASU12 + BEC12 + RBV12	0	55	0%
		(26) DCV12 + ASU12 + BEC12	0	57	0%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	0	101	0%
Omata et al., 2014	2	(3) SOF12 + RBV12	0	90	0%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	1	10	10%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	2	25	8%
		(71) SOF24 + RBV (low dose) 24	3	25	12%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	0	50	0%
Poordad et al., 2011 SPRINT2	1	(1) PR48	204	363	56%
		(46) B24 PR28-48 RGT	139	368	38%
Poordad et al. et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	7	312	2%
Sulkowski et al., 2014-1	2+3	(3) SOF12 + RBV12	3	26	12%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	11	115	10%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%
Sulkowski et al., 2013-1	1	(1) PR48	4	6	67%
		(39) T12 PR48 q8	3	7	43%
Sulkowski et al., 2013-2	1	(1) PR48	2	8	25%
		(39) T12 PR48 q8	7	15	47%
Sulkowski et al., 2013	1	(1) PR48	23	34	68%
		(50) B44 PR48	24	64	38%
Zeuzem et al., 2015 C-EDGE	1+4+6	(22) GRZ12 + ELB12	5	316	2%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; SVR = sustained virologic response; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 186: DISCONTINUATION DUE TO ADVERSE EVENT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	0	214	0%
		(7) SOF24 + LDV24	4	217	2%
		(10) SOF12 + LDV12 + RBV12	0	217	0%
		(11) SOF24 + LDV24 + RBV24	6	217	3%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	70	371	19%
		(33) T12 PR24-48 RGT q12	57	369	15%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	3	473	1%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	209	0%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	100	0%
Fried et al., 2013 PILLAR	1	(1) PR48	4	77	5%
		(42) SIM12 PR24-48 RGT	4	77	5%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	0	10	0%
		(40) SOF12 + PR12	1	11	9%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	1	25	4%
Hassanein et al., 2015	4	(52) DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	0	11	0%
		(53) DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	0	10	0%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	3	130	2%
		(42) SIM12 PR24-48 RGT	7	264	3%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	26	361	7%
		(32) T12 PR24-48 RGT q8	36	363	10%
Kohli et al., 2015	1	(6) SOF12 + LDV12	0	20	0%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	2	216	1%
		(8) SOF8 + LDV8	0	215	0%
		(9) SOF8 + LDV8 + RBV8	1	216	0%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	3	52	6%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	9	135	7%
Lalezari et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	38	3%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	5	327	2%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	3	256	1%
		(70) PR24	26	243	11%
Lawitz et al., 2014 LONESTAR	1	(8) SOF8 + LDV8	0	20	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Lawitz et al., 2014 LONESTAR	1	(9) SOF8 + LDV8 + RBV8	0	21	0%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	20	0%
Lawitz et al., 2013-1	1	(1) PR48	3	26	12%
		(41) SOF12 PR24-48 RGT	3	47	6%
Lawitz et al., 2013-2	2 + 3	(40) SOF12 + PR12	0	25	0%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	29	0%
		(59) GRZ18 + ELB18 (50 mg q.d.)	0	31	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	31	0%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	1	32	3%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	6	205	3%
Manns et al., 2014 QUEST-2	1	(1) PR48	0	134	0%
		(42) SIM12 PR24-48 RGT	2	257	1%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	5	82	6%
		(32) T12 PR24-48 RGT q8	8	79	10%
Molina et al., 2015-1 PHOTON-2	1	(4) SOF24 + RBV24	3	112	3%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	0	19	0%
Molina et al., 2015-3 PHOTON-2	3	(4) SOF24 + RBV24	1	57	2%
Molina et al., 2015-4 PHOTON-2	4	(4) SOF24 + RBV24	0	31	0%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%
		(71) SOF24 + RBV (low dose) 24	0	25	0%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	0	50	0%
Poordad et al., 2011 SPRINT2	1	(1) PR48	57	363	16%
		(46) B24 PR28-48 RGT	45	368	12%
Poordad et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	0	312	0%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	2	23	9%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	0	86	0%
		(57) GRZ12 + ELB12 (50 mg q.d.)	0	43	0%
		(61) GRZ8 + ELB8 (50 mg q.d.) + RBV8	0	30	0%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	30	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	29	0%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	3	68	4%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	3	114	3%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%
Sulkowski et al., 2013-1+2[b]	1	(1) PR48	0	22	0%
		(39) T12 PR48 q8	3	38	8%
Sulkowski et al., 2013	1	(1) PR48	3	34	9%
		(50) B44 PR48	13	64	20%
Zeuzem et al., 2015 C-EDGE	1+4+6	(22) GRZ12 + ELB12	3	316	1%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for Genotype 3, (3) SOF12 + RBV12, are also included.
[b] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 187: RELAPSE

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	1	214	0%
		(7) SOF24 + LDV24	1	217	0%
		(10) SOF12 + LDV12 + RBV12	0	217	0%
		(11) SOF24 + LDV24 + RBV24	0	217	0%
Dieterich et al., 2014-1	1	(42) SIM12 PR24-48 RGT	5	53	9%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	7	463	2%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	209	0%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	100	1%
Fried et al., 2013 PILLAR	1	(1) PR48	11	77	14%
		(42) SIM12 PR24-48 RGT	6	77	8%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	8	25	32%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	25	0%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	18	130	14%
		(42) SIM12 PR24-48 RGT	21	264	8%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	64	361	18%
		(32) T12 PR24-48 RGT q8	27	363	7%
Kohli et al., 2015	1	(6) SOF12 + LDV12	0	20	0%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	2	52	4%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	3	216	1%
		(8) SOF8 + LDV8	11	215	5%
		(9) SOF8 + LDV8 + RBV8	9	216	4%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	11	135	8%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	38	0%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	28	327	9%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	74	256	29%
		(70) PR24	46	243	19%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	0	26	0%
		(41) SOF12 PR24-48 RGT	1	47	2%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	0	25	0%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	1	29	3%
Lawitz et al., 2015-1 C-WORTHY		(59) GRZ18 + ELB18 (50 mg q.d.)	2	31	6%
Lawitz et al., 2015-1 C-WORTHY		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	2	31	6%
Lawitz et al., 2015-1 C-WORTHY		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	32	0%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
		(8) SOF8 + LDV8	1	20	5%
		(9) SOF8 + LDV8 + RBV8	0	21	0%
Manns et al., 2014 QUEST-2	1	(1) PR48	21	134	16%
		(42) SIM12 PR24-48 RGT	30	257	12%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	5	205	2%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	5	82	6%
		(33) T12 PR24-48 RGT q12	4	79	5%
Mizokami et al. et al., 2015	1	(6) SOF12 + LDV12	0	83	0%
		(10) SOF12 + LDV12 + RBV12	1	83	1%
Molina et al., 2015-1 PHOTON-2	1	(4) SOF24 + RBV24	14	112	13%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	1	19	5%
Molina et al., 2015-3 PHOTON-2	3	(4) SOF24 + RBV24	4	57	7%
Molina et al., 2015-4 PHOTON-2	4	(4) SOF24 + RBV24	5	31	16%
Muir et al. et al., 2015 UNITY-2	1	(25) DCV12 + ASU12 + BEC12 + RBV12	0	55	0%
		(26) DCV12 + ASU12 + BEC12	4	57	7%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	9	100	9%
Omata et al., 2014	2	(3) SOF12 + RBV12	2	90	2%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	7	25	28%
		(71) SOF24 + RBV (low dose) 24	10	25	40%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	1	50	2%
Pearlman et al., 2015	1	(5) SIM12 + SOF12	0	22	0%
		(40) SOF12 + PR12	1	10	10%
Poordad et al., 2011 SPRINT2	1	(1) PR48	39	363	11%
		(46) B24 PR28-48 RGT	24	368	7%
Poordad et al. et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	15	312	5%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	1	23	4%
Ruane et al., 2014	2+3+4	(3) SOF12 + RBV12	2	13	15%
		(4) SOF24 + RBV24	0	14	0%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	2	85	2%
		(57) GRZ12 + ELB12 (50 mg q.d.)	1	44	2%
		(61) GRZ8 + ELB8 (50 mg q.d.) + RBV8	5	30	17%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	30	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	1	29	3%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	25	115	22%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%
Sulkowski et al., 2013-1	1	(1) PR48	0	6	0%
		(39) T12 PR48 q8	1	7	14%
Sulkowski et al., 2013-2	1	(1) PR48	2	8	25%
		(39) T12 PR48 q8	0	15	0%
Sulkowski et al., 2013	1	(1) PR48	1	34	3%
		(50) B44 PR48	2	64	3%
Zeuzem et al., 2015-1 C-EDGE	1+4+6	(22) GRZ12 + ELB12	10	288	3%
Zeuzem et al., 2015-2 C-EDGE		(22) GRZ12 + ELB12	0	18	0%
Zeuzem et al., 2015-3 C-EDGE		(22) GRZ12 + ELB12	2	10	20%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 188: MORTALITY — ALL-CAUSE(S) AND LIVER-RELATED

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	MORTALITY ALL-CAUSE			MORTALITY LIVER-RELATED		
			n	N	%	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	0	214	0%	NR		
		(7) SOF24 + LDV24	0	217	0%			
		(10) SOF12 + LDV12 + RBV12	0	217	0%			
		(11) SOF24 + LDV24 + RBV24	0	217	0%			
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	1	371	0%	NR		
		T12 PR24-48 2b RGT q12	0	369	0%			
Fried et al., 2013 PILLAR	1	(1) PR48	0	77	0%	NR		
		(42) SIM12 PR24-48 RGT	0	77	0%			
Jacobson et al., 2011 ADVANCE	1	(1) PR48	1	361	0%	NR		
		(32) T12 PR24-48 RGT q8	2	363	1%			
Jacobson et al., 2014 QUEST-1	1	(1) PR48	0	130	0%	NR		
		(42) SIM12 PR24-48 RGT	0	264	0%			
Kumada et al., 2014	1b	(17) DCV24 + ASU24	0	135	0%	0	135	0%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	0	327	0%	0	327	0%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	2	263	1%	NR		
		(70) PR24	1	264	0%			
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%	0	19	0%
		(8) SOF8 + LDV8	0	20	0%	0	20	0%
		(9) SOF8 + LDV8 + RBV8	0	21	0%	0	21	0%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	29	0%	NR		
		(59) GRZ18 + ELB18 (50 mg q.d.)	0	31	0%			
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	31	0%			
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	32	0%			
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0%	0	205	0%
Manns et al., 2014 QUEST-2	1	(1) PR48	0	134	0%	NR		
		(42) SIM12 PR24-48 RGT	2	257	1%			
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	0	82	0%	NR		

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	MORTALITY ALL-CAUSE			MORTALITY LIVER-RELATED		
			n	N	%	n	N	%
		(33) T12 PR24-48 RGT q12	0	79	0%			
Mizokami et al. et al., 2015	1	(6) SOF12 + LDV12	0	83	0%	0	83	0%
		(10) SOF12 + LDV12 + RBV12	1	83	1%	0	83	0%
Molina et al., 2015-1+3+4 PHOTON-2	1+3+4	(4) SOF24 + RBV24	0	200	0%	0	200	0%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	0	19	0%	0	19	0%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	0	101	0%	NR		
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%	0	10	0%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%	0	25	0%
		(71) SOF24 + RBV (low dose) 24	0	25	0%	0	25	0%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	0	50	0%	0	50	0%
Poordad et al., 2011 SPRINT2	1	(1) PR48	4	176	2%	NR		
		(46) B24 PR28-48 RGT	2	257	1%			
Poordad et al. et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	0	312	0%	NR		
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	0	23	0%	0	23	0%
Lawitz et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	0	85	0%	0	85	0%
		(57) GRZ12 + ELB12 (50 mg q.d.)	0	44	0%	0	44	0%
		(61) GRZ8 + ELB8 (50 mg q.d.) + RBV8	0	30	0%	0	30	0%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	30	0%	0	30	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	29	0%	0	29	0%
Sulkowski et al., 2014-1	2+3	(3) SOF12 + RBV12	0	26	0%	0	26	0%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	0	114	0%	0	114	0%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%	0	41	0%
Sulkowski et al., 2013-1	1	(1) PR48	0	6	0%	0	6	0%
		(39) T12 PR48 q8	0	7	0%	0	7	0%
Sulkowski et al., 2013-2	1	(1) PR48	0	8	0%	0	8	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	MORTALITY ALL-CAUSE			MORTALITY LIVER-RELATED		
			n	N	%	n	N	%
		(39) T12 PR48 q8	0	15	0%	0	15	0%
Zeuzem et al., 2015-1 C-EDGE	1+4+6	(22) GRZ12 + ELB12	2	288	1%	0	288	0%
Zeuzem et al., 2015-2 C-EDGE		(22) GRZ12 + ELB12	0	18	0%	0	18	0%
Zeuzem et al., 2015-3 C-EDGE		(22) GRZ12 + ELB12	0	10	0%	0	10	0%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 189: SERIOUS ADVERSE EVENTS

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	1	214	0%
		(7) SOF24 + LDV24	18	217	8%
		(10) SOF12 + LDV12 + RBV12	7	217	3%
		(11) SOF24 + LDV24 + RBV24	7	217	3%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	48	371	13%
		(33) T12 PR24-48 RGT q12	42	369	11%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	10	473	2%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	4	209	2%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	3	100	3%
Fried et al., 2013 PILLAR	1	(1) PR48	10	77	13%
		(42) SIM12 PR24-48 RGT	4	77	5%
Gane et al., 2013 ELECTRON	2+3	(3) SOF12 + RBV12	1	10	10%
		(40) SOF12 + PR12	0	11	0%
Gane et al., 2013 ELECTRON	1	(3) SOF12 + RBV12	1	25	4%
Gane et al., 2014 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	2	25	8%
Hassanein et al., 2015	4	(52) DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	0	11	0%
		(53) DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	0	10	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	8	130	6%
		(42) SIM12 PR24-48 RGT	10	264	4%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	24	361	7%
		(32) T12 PR24-48 RGT q8	33	363	9%
Kohli et al., 2015	1	(6) SOF12 + LDV12	0	20	0%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	5	216	2%
		(8) SOF8 + LDV8	4	215	2%
		(9) SOF8 + LDV8 + RBV8	1	216	0%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	2	52	4%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	9	135	7%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	2	38	5%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	4	327	1%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	7	256	3%
		(70) PR24	3	243	1%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	1	19	5%
		(8) SOF8 + LDV8	0	20	0%
		(9) SOF8 + LDV8 + RBV8	1	21	5%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	1	26	4%
		(41) SOF12 PR24-48 RGT	3	47	6%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	0	25	0%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	2	29	7%
		(59) GRZ18 + ELB18 (50 mg q.d.)	0	31	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	31	0%
		(65) GRZ18 + ELB18(50 mg q.d.) + RBV18	1	32	3%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	12	205	6%
Manns et al., 2014 QUEST-2	1	(1) PR48	10	134	7%
		(42) SIM12 PR24-48 RGT	16	257	6%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	6	82	7%
		(33) T12 PR24-48 RGT q12	5	79	6%
Molina et al., 2015-1+3+4 PHOTON-2	1+3+4	(4) SOF24 + RBV24	10	200	5%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	0	19	0%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%
		(71) SOF24 + RBV (low dose) 24	2	25	8%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	1	50	2%
Poordad et al., 2011 SPRINT2	1	(1) PR48	31	363	9%
Poordad et al., 2011 SPRINT2	1	(46) B24 PR28-48 RGT	42	368	11%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	0	23	0%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	1	86	1%
		(57) GRZ12 + ELB12 (50 mg q.d.)	0	43	0%
		(61) GRZ8 + ELB8(50 mg q.d.) + RBV8	0	30	0%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	1	30	3%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	1	29	3%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	5	68	7%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	8	114	7%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	1	41	2%
Sulkowski et al., 2013-1+2[#b]	1	(1) PR48	2	22	9%
		(39) T12 PR48 q8	7	38	18%
Sulkowski et al., 2013	1	(1) PR48	7	34	21%
		(50) B44 PR48	11	64	17%
Zeuzem et al., 2015-1+2+3	1+4+6	(22) GRZ12 + ELB12	9	316	3%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for genotype 3, (3) SOF12 + RBV12, are included.
[b] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 190: ADVERSE EVENT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	169	214	79%
		(7) SOF24 + LDV24	178	217	82%
		(10) SOF12 + LDV12 + RBV12	185	217	85%
		(11) SOF24 + LDV24 + RBV24	200	217	92%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	368	371	99%
		(33) T12 PR24-48 RGT q12	361	369	98%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	414	473	88%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	140	209	67%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	92	100	92%
Fried et al., 2013 PILLAR	1	(1) PR48	75	77	97%
		(42) SIM12 PR24-48 RGT	76	77	99%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	10	10	100%
		(40) SOF12 + PR12	11	11	100%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	25	25	100%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	24	25	96%
Hassanein et al., 2015	4	(52) DCV12 + ASU12 + BEC12 (75 mg b.i.d.)	7	11	64%
		(53) DCV12 + ASU12 + BEC12 (150 mg b.i.d.)	8	10	80%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	125	130	96%
		(42) SIM12 PR24-48 RGT	255	264	97%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	354	361	98%
		(32) T12 PR24-48 RGT q8	361	363	99%
Kohli et al., 2015 NR	1	(6) SOF12 + LDV12	20	20	100%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	51	52	98%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	149	216	69%
		(8) SOF8 + LDV8	145	215	67%
		(9) SOF8 + LDV8 + RBV8	165	216	76%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	35	38	92%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	310	327	95%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	220	256	86%
		(70) PR24	233	243	96%
Lawitz et al., 2014 LONESTAR	1a, 1b	(6) SOF12 + LDV12	8	19	42%
		(8) SOF8 + LDV8	9	20	45%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
		(9) SOF8 + LDV8 + RBV8	12	21	57%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	26	26	100%
		(41) SOF12 PR24-48 RGT	46	47	98%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	24	25	96%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	17	29	59%
		(59) GRZ18 + ELB18 (50 mg q.d.)	25	31	81%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	24	31	77%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	28	32	88%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	176	205	86%
Manns et al., 2014 QUEST-2	1	(1) PR48	132	134	99%
		(42) SIM12 PR24-48 RGT	249	257	97%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	81	82	99%
		(33) T12 PR24-48 RGT q12	79	79	100%
Molina et al., 2015-1+3+4 PHOTON-2	1+3+4	(4) SOF24 + RBV24	182	200	91%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	17	19	89%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	9	10	90%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	24	25	96%
		(71) SOF24 + RBV (low dose) 24	21	25	84%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	50	50	100%
Poordad et al., 2011 SPRINT2	1	(1) PR48	356	363	98%
		(46) B24 PR28-48 RGT	365	368	99%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	16	23	70%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	65	86	76%
		(57) GRZ12 + ELB12(50 mg q.d.)	38	43	88%
		(61) GRZ8 + ELB8(50 mg q.d.) + RBV8	26	30	87%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	15	30	50%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	19	29	66%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	57	68	84%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	106	114	93%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	38	41	93%
Sulkowski et al., 2013-1+2[b]	1	(1) PR48	22	22	100%
		(39) T12 PR48 q8	38	38	100%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Sulkowski et al., 2013	1	(1) PR48	34	34	100%
		(50) B44 PR48	63	64	98%
Zeuzem et al., 2015-1+2+3 C-EDGE	1+4+6	(22) GRZ12 + ELB12	213	316	67%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for genotype 3, (3) SOF12 + RBV12, are included.
[b] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 191: FATIGUE

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	44	214	21%
		(10) SOF12 + LDV12 + RBV12	79	217	36%
		(11) SOF24 + LDV24 + RBV24	82	217	38%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	181	371	49%
		(33) T12 PR24-48 RGT q12	185	369	50%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	164	473	35%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	45	209	22%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	46	100	46%
Fried et al., 2013 PILLAR	1	(1) PR48	37	77	48%
		(42) SIM12 PR24-48 RGT	32	77	42%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	1	10	10%
		(40) SOF12 + PR12	5	11	45%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	12	25	48%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	6	25	24%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	53	130	41%
		(42) SIM12 PR24-48 RGT	110	264	42%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	206	361	57%
		(32) T12 PR24-48 RGT q8	207	363	57%
Kohli et al., 2015	1	(6) SOF12 + LDV12	2	20	10%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	25	52	48%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	49	216	23%
		(8) SOF8 + LDV8	45	215	21%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
		(9) SOF8 + LDV8 + RBV8	75	216	35%
Lalezari et al. et al., 2015	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	18	38	47%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	192	327	59%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	92	256	36%
		(70) PR24	134	243	55%
Lawitz et al., 2014 LONESTAR	1	(8) SOF8 + LDV8	0	20	0%
		(9) SOF8 + LDV8 + RBV8	1	21	5%
		(6) SOF12 + LDV12	1	19	5%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	14	26	54%
		(41) SOF12 PR24-48 RGT	32	47	68%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	9	25	36%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	5	29	17%
		(59) GRZ18 + ELB18 (50 mg q.d.)	5	31	16%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	9	31	29%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	9	32	28%
Manns et al., 2014 HALLMARK-	1b	(17) DCV24 + ASU24	43	205	21%
Manns et al., 2014 QUEST-2	1	(1) PR48	56	134	42%
		(42) SIM12 PR24-48 RGT	94	257	37%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	30	82	37%
		(33) T12 PR24-48 RGT q12	31	79	39%
Molina et al., 2015-1+3+4 PHOTON-2	1+3+4	(4) SOF24 + RBV24	40	200	20%
Molina et al., 2015-2 PHOTON-2	2	(3) SOF12 + RBV12	5	19	26%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	3	10	30%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	4	25	16%
		(71) SOF24 + RBV (low dose) 24	6	25	24%
Osinusi et al., 2015	1	(6) SOF12 + LDV12	5	50	10%
Poordad et al., 2011 SPRINT2	1	(1) PR48	217	363	60%
		(46) B24 PR28-48 RGT	196	368	53%
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	8	23	35%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	23	86	27%
		(57) GRZ12 + ELB12 (50 mg q.d.)	10	43	23%
		(61) GRZ8 + ELB8 (50 mg q.d.) + RBV8	14	30	47%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	2	30	7%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	2	29	7%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	24	68	35%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	41	114	36%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	16	41	39%
Sulkowski et al., 2013-1+2[#b]	1	(1) PR48	9	22	41%
		(39) T12 PR48 q8	16	38	42%
Sulkowski et al., 2013	1	(1) PR48	12	34	35%
		(50) B44 PR48	24	64	38%
Zeuzem et al., 2015-1+2+3 C-EDGE	1+4+6	(22) GRZ12 + ELB12	49	316	16%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for genotype 3, (3) SOF12 + RBV12, are included.
[b] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 192: PRURITUS

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	11	214	5%
		(7) SOF24 + LDV24	8	217	4%
		(10) SOF12 + LDV12 + RBV12	22	217	10%
		(11) SOF24 + LDV24 + RBV24	20	217	9%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	170	371	46%
		(33) T12 PR24-48 RGT q12	172	369	47%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	80	473	17%
Ferenci et al., 2014 PEARL-III	1b	(14) PAR/RIT12 + OMB12 + DAS12	25	209	12%
Ferenci et al., 2014 PEARL-IV	1a	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	10	100	10%
Fried et al., 2013 PILLAR	1	(1) PR48	35	77	45%
		(42) SIM12 PR24-48 RGT	30	77	39%
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	1	10	10%
		(40) SOF12 + PR12	2	11	18%
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	2	25	8%
Jacobson et al., 2014 QUEST-1	1	(1) PR48	26	130	20%
		(42) SIM12 PR24-48 RGT	79	264	30%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	131	361	36%
		(32) T12 PR24-48 RGT q8	181	363	50%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	5	52	10%
Kowdley et al., 2014 ION-3	1	(6) SOF12 + LDV12	5	216	2%
		(8) SOF8 + LDV8	2	215	1%
		(9) SOF8 + LDV8 + RBV8	16	216	7%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	NR	135	NR
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	54	327	17%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	19	256	7%
		(70) PR24	42	243	17%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
Lawitz et al., 2014 LONESTAR	1	(8) SOF8 + LDV8	0	20	0%
Lawitz et al., 2014 LONESTAR	1	(9) SOF8 + LDV8 + RBV8	0	21	0%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	3	26	12%
		(41) SOF12 PR24-48 RGT	5	47	11%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	3	25	12%
Lawitz et al., 2015-1 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	1	29	3%
Lawitz et al., 2015-1 C-WORTHY	1	(59) GRZ18 + ELB18 (50 mg q.d.)	2	31	6%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	2	31	6%
		(65) GRZ18 + ELB18(50 mg q.d.) + RBV18	5	32	16%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	8	205	4%
Manns et al., 2014 QUEST-2	1	(1) PR48	36	134	27%
		(42) SIM12 PR24-48 RGT	66	257	26%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	42	82	51%
Marcellin et al., 2011	1	(33) T12 PR24-48 RGT q12	45	79	57%
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	1	10	10%
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	3	25	12%
		(71) SOF24 + RBV (low dose) 24	0	25	0%
Poordad et al., 2011 SPRINT2	1	(1) PR48	98	363	27%
		(46) B24 PR28-48 RGT	87	368	24%
Sulkowski et al., 2015-1 C-WORTHY	1	(23) GRZ12 + ELB12 + RBV12	6	86	7%
		(57) GRZ12 + ELB12 (50 mg q.d.)	0	43	0%
		(61) GRZ8 + ELB8 (50 mg q.d.) + RBV8	6	30	20%
Sulkowski et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	30	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	3	29	10%
Sulkowski et al., 2014-1[a]	2+3	(3) SOF12 + RBV12	6	68	9%
Sulkowski et al., 2014-2	1	(4) SOF24 + RBV24	6	114	5%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	1	41	2%
Sulkowski et al., 2013-1+2[b]	1	(1) PR48	2	22	9%
		(39) T12 PR48 q8	15	38	39%
Sulkowski et al., 2013	1	(1) PR48	3	34	9%
		(50) B44 PR48	12	64	19%
Zeuzem-1+2+3 et al., 2015 C-EDGE	1+4+6	(22) GRZ12 + ELB12	7	316	2%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible treatment for genotype 3, (3) SOF12 + RBV12, are included.
[b] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 193: NEUTROPENIA/THROMBOCYTOPENIA

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	NEUTROPENIA			THROMBOCYTOPENIA		
			n	N	%	n	N	%
Afdhal et al., 2014 ION-1	1	(6) SOF12 + LDV12	1	214	0%	1	214	0%
		(7) SOF24 + LDV24	3	217	1%	1	217	0%
		(10) SOF12 + LDV12 + RBV12	0	217	0%	0	217	0%
		(11) SOF24 + LDV24 + RBV24	0	217	0%	0	217	0%
Fried et al., 2013 PILLAR	1	(1) PR48	16	77	21%	NR		
		(42) SIM12 PR24-48 RGT	19	77	25%			
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	0	10	0%	NR		
		(40) SOF12 + PR12	2	11	18%			
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%	NR		
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	25	0%	NR		
Jacobson et al., 2011 ADVANCE	1	(1) PR48	68	361	19%	NR		
		(32) T12 PR24-48 RGT q8	51	363	14%			
Jacobson et al., 2014 QUEST-1	1	(1) PR48	23	130	18%	5	130	4%
		(42) SIM12 PR24-48 RGT	64	264	24%	18	264	7%
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	12	52	23%	**5**	**52**	10%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	NR			7	327	2%
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	0	256	0%	0	256	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	NEUTROPENIA			THROMBOCYTOPENIA		
			n	N	%	n	N	%
		(70) PR24	30	243	12%	5	243	2%
Lawitz et al., 2013-1 PROTON	1	(1) PR48	5	26	19%	NR		
		(41) SOF12 PR24-48 RGT	14	47	30%			
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	6	25	24%	NR		
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0%	NR		
Manns et al., 2014 QUEST-2	1	(1) PR48	36	134	27%	9	134	7%
		(42) SIM12 PR24-48 RGT	54	257	21%	13	257	5%
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	4	82	5%	NR		
		(33) T12 PR24-48 RGT q12	1	79	1%			
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%	NR		
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%	NR		
		(71) SOF24 + RBV (low dose) 24	1	25	4%			
Osinusi et al., 2015	1	(6) SOF12 + LDV12	1	50	2%	NR		
Poordad et al., 2011 SPRINT2	1	(1) PR48	77	363	21%	NR		
		(46) B24 PR28-48 RGT	92	368	25%			
Rodriguez-Torres et al., 2015	1+2+3+4	(40) SOF12 + PR12	4	23	17%	4	23	17%
Sulkowski et al., 2013	1	(1) PR48	2	34	6%	0	34	0%
		(50) B44 PR48	12	64	19%	5	64	8%
Sulkowski et al., 2013-1+2[a]	1	(1) PR48	5	22	23%	0	22	0%
		(39) T12 PR48 q8	9	38	24%	1	38	3%
Zeuzem et al., 2015-1+2+3 C-EDGE	1+4+6	(22) GRZ12 + ELB12	39	316	12%	NR		

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir;; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 194: FLU-LIKE SYMPTOMS/SUICIDAL IDEATION

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	FLU-LIKE SYMPTOMS			SUICIDAL IDEATION		
			n	N	%	n	N	%
Fried et al., 2013 PILLAR	1	(1) PR48	29	77	38%	NR		
		(42) SIM12 PR24-48 RGT	18	77	23%			
Gane et al., 2013-1 ELECTRON	2+3	(3) SOF12 + RBV12	0	10	0%	NR		
		(40) SOF12 + PR12	0	11	0%			
Gane et al., 2013-3 ELECTRON	1	(3) SOF12 + RBV12	0	25	0%	NR		
Gane et al., 2014-1 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	25	0%	NR		
Jacobson et al., 2011 ADVANCE	1	(1) PR48	101	361	28%	NR		
		(32) T12 PR24-48 RGT q8	102	363	28%			
Jacobson et al., 2014 QUEST-1	1	(1) PR48	26	130	20%	NR		
		(42) SIM12 PR24-48 RGT	62	264	23%			
Kowdley et al., 2013 ATOMIC	1	(40) SOF12 + PR12	3	52	6%	NR		
Lawitz et al., 2013-1 PROTON	1	(1) PR48	NR			0	26	0%
		(41) SOF12 PR24-48 RGT				1	47	2%
Lawitz et al., 2013-2 PROTON	2+3	(40) SOF12 + PR12	NR			0	25	0%
Lawitz et al., 2013 NEUTRINO	1+4+5+6	(40) SOF12 + PR12	51	327	16%	NR		
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	7	256	3%	NR		
		(70) PR24	44	243	18%			
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	NR			0	19	0
		(8) SOF8 + LDV8				0	20	0
		(9) SOF8 + LDV8 + RBV8				0	21	0
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	11	205	5%	NR		
Manns et al., 2014 QUEST-2	1	(1) PR48	35	134	26%	NR		
		(42) SIM12 PR24-48 RGT	66	257	26%			
Marcellin et al., 2011	1	(32) T12 PR24-48 RGT q8	35	82	43%	NR		
		(33) T12 PR24-48 RGT q12	31	79	39%			
Poordad et al., 2011 SPRINT2	1	(1) PR48	93	363	26%	NR		
		(46) B24 PR28-48 RGT	91	368	25%			
Sulkowski et al., 2014	1	(19) DCV12 + SOF12	0	41	0%	1	41	0

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	FLU-LIKE SYMPTOMS			SUICIDAL IDEATION		
			n	N	%	n	N	%
Sulkowski et al., 2013-1+2[a]	1	(1) PR48	3	22	14%	0	22	0%
		(39) T12 PR48 q8	5	38	13%	1	38	3%
Sulkowski et al., 2013	1	(1) PR48	13	34	38%	NR		
		(50) B44 PR48	16	64	25%			

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 195: EPOETIN USE/BLOOD TRANSFUSION

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	EPOETIN USE			BLOOD TRANSFUSION		
			n	N	%	n	N	%
Buti et al., 2014 OPTIMIZE	1	(32) T12 PR24-48 RGT q8	29	371	8%	32	371	9%
		(33) T12 PR24-48 RGT q12	39	369	11%	31	369	8%
Feld et al., 2014 SAPPHIRE-I	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	1	473	0%	0	473	0%
Jacobson et al., 2011 ADVANCE	1	(1) PR48	NR			6	361	2%
		(32) T12 PR24-48 RGT q8				17	363	5%
Jacobson et al., 2014	1	(1) PR48	NR			3	130	2%
		(42) SIM12 PR24-48 RGT				3	264	1%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%	NR		
		(8) SOF8 + LDV8	0	20	0%			
		(9) SOF8 + LDV8 + RBV8	0	21	0%			
Osinusi et al., 2013 SPARE-1	1	(4) SOF24 + RBV24	0	10	0%	NR		
Osinusi et al., 2013 SPARE-2	1	(4) SOF24 + RBV24	0	25	0%	NR		
		(71) SOF24 + RBV (low dose) 24	0	25	0%			
Poordad et al., 2011 SPRINT2	1	(1) PR48	87	363	24%	2	363	1%
		(46) B24 PR28-48 RGT	159	368	43%	11	368	3%
Sulkowski et al., 2013-1+2[a]	1	(1) PR48	1	22	5%	1	22	5%
		(39) T12 PR48 q8	3	38	8%	4	38	5%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	EPOETIN USE			BLOOD TRANSFUSION		
			n	N	%	n	N	%
Sulkowski et al., 2013	1	(1) PR48	6	34	18%	2	34	5%
		(50) B44 PR48	19	64	30%	4	64	5%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.
[a] Data for ineligible participants who receive efavirenz-based antiretroviral and 1,125 mg of telaprevir every 8 hours are also included.

TABLE 196: HEPATIC CARCINOMA/HEPATIC CIRRHOSIS/LIVER TRANSPLANT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	HEPATOCELLULAR CARCINOMA			LIVER TRANSPLANTS		
			n	N	%	n	N	%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	1	135	0.74	NR		
Lawitz et al., 2013 FISSION	2+3	(3) SOF12 + RBV12	0	263	0.0%	NR		
		(70) PR24	1	264	0.4%			
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0	0	205	0

ASU = asunaprevir; DCV = daclatasvir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

Treatment-Experienced

TABLE 197: WITHDRAWALS — ALL-CAUSE(S)

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	95	0%
Bacon et al., 2011 RESPOND2	1	(1) PR48	5	80	6%
		(74) B32 PR36-48 RGT	16	162	10%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	0	77	0%
		(10) SOF12 + LDV12 + RBV12	0	78	0%
Dieterich et al., 2014-2+3+4	1	(69) SIM12 PR24-48 RGT or SIM12 PR48	5	53	9%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	2	79	3%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Forns et al., PROMISE (HPC3007)	1	(1) PR48	14	133	11%
		(42) SIM12 PR24-48 RGT	10	260	4%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	49	103	48%
Jensen et al., 2015-1 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	1	354	0%
Jensen et al., 2015-2 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	0	44	0%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
		(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2014 COSMOS	1	(72) SOF12 + SIM12 + RBV12	0	27	0%
		(5) SIM12 + SOF12	0	14	0%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0%
Mizokami et al. et al., 2015	1	(6) SOF12 + LDV12	0	88	0%
		(10) SOF12 + LDV12 + RBV12	0	87	0%
Molina et al., 2015 PHOTON-2	3	(4) SOF24 + RBV24	0	49	0%
Omata et al., 2014	2	(3) SOF12 + RBV12	0	63	0%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	0	80	0%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	29	384	8%
		(68) SIM12 PR48	21	379	6%
Sulkowski et al., 2014-3	3	(4) SOF24 + RBV24	2	17	12%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	0	51	0%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	22	132	17%
		(39) T12 PR48 q8	21	266	8%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	7	66	11%
		(68) SIM12 PR48	5	66	8%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 198: WITHDRAWAL DUE TO ADVERSE EVENT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	95	0%
Dieterich et al., 2014-2+3+4	1	(68) SIM12 PR48	1	53	2%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Forns et al., 2014 PROMISE	1	(1) PR48	0	133	0%
		(42) SIM12 PR24-48 RGT	1	260	0%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	0	103	0%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	1	47	2%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
		(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2014 COSMOS	1	(5) SIM12 + SOF12	0	14	0%
		(72) SOF12 + SIM12 + RBV12	0	27	0%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	0	80	0%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	4	384	1%
		(68) SIM12 PR48	0	379	0%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	0	41	0%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	0	51	0%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	2	132	2%
		(39) T12 PR48 q8	1	266	0%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	0	66	0%
		(68) SIM12 PR48	1	66	2%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; CrI = credible interval; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RD = risk difference; RGT = response-guided therapy; RIT = ritonavir; RR = relative risk; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir; vs. = versus.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 199: DISCONTINUATION — ALL-CAUSE(S)

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	0	109	0%
		(7) SOF24 + LDV24	2	109	2%
		(10) SOF12 + LDV12 + RBV12	0	111	0%
		(11) SOF24 + LDV24 + RBV24	1	111	1%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	95	0%
Bacon et al., 2011 RESPOND2	1	(1) PR48	57	80	71%
		(74) B32 PR36-48 RGT	58	162	36%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	0	77	0%
		(10) SOF12 + LDV12 + RBV12	1	78	1%
Dieterich et al., 2014-2+3+4	1	(69) SIM12 PR24-48 RGT or SIM12 PR48	15	53	28%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	1	79	1%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	1	103	1%
Jensen et al., 2015-1 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	19	354	5%
Jensen et al., 2015-2 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	0	44	0%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	14	87	16%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	3	47	6%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
		(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2014 COSMOS	1	(72) SOF12 + SIM12 + RBV12	0	27	0%
		(5) SIM12 + SOF12	0	14	0%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	6	20	30%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	0	21	0%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	28	205	14%
Mizokami et al., 2015	1	(6) SOF12 + LDV12	0	88	0%
		(10) SOF12 + LDV12 + RBV12	0	87	0%
Molina et al., 2015 PHOTON-2	3	(4) SOF24 + RBV24	2	49	4%
Muir et al., 2015 UNITY-2	1+6	(25) DCV12 + ASU12 + BEC12 + RBV12	2	45	4%
		(26) DCV12 + ASU12 + BEC12	1	45	2%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	0	51	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Omata et al., 2014	2	(3) SOF12 + RBV12	0	63	0%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	0	80	0%
Poordad et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	4	103	4%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	76	384	20%
Reddy et al., 2015 ATTAIN		(68) SIM12 PR48	51	379	13%
Sulkowski et al., 2014-3	3	(4) SOF24 + RBV24	0	17	0%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	1	51	2%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	5	297	2%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	44	132	33%
		(39) T12 PR48 q8	51	266	19%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	40	66	61%
		(68) SIM12 PR48	16	66	24%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 200: DISCONTINUATION DUE TO ADVERSE EVENT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	0	109	0%
	1	(10) SOF12 + LDV12 + RBV12	0	111	0%
	1	(7) SOF24 + LDV24	0	109	0%
	1	(11) SOF24 + LDV24 + RBV24	0	111	0%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	95	0%
Bacon et al., 2011 RESPOND2	1	(1) PR48	2	80	3%
		(74) B32 PR36-48 RGT	13	162	8%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	0	77	0%
	1	(10) SOF12 + LDV12 + RBV12	1	78	1%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	1	79	1%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Forns et al., 2014 PROMISE	1	(1) PR48	0	133	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
		(42) SIM12 PR24-48 RGT	1	260	0%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	1	103	1%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	18	398	5%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	2	87	2%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	4	47	9%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
	1	(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2014 COSMOS	1	(5) SIM12 + SOF12	0	14	0%
		(72) SOF12 + SIM12 + RBV12	0	27	0%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12(50 mg q.d.)	0	33	0%
		(59) GRZ18 + ELB18(50 mg q.d.)	0	32	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	1	32	3%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	33	0%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	0	20	0%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	0	21	0%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	2	205	1%
Molina et al., 2015 PHOTON-2	3	(4) SOF24 + RBV24	2	49	4%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al. et al., 2015	1	(40) SOF12 + PR12	0	80	0%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	39	384	10%
		(68) SIM12 PR48	12	379	3%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	1	41	2%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	1	51	2%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	3	297	1%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	4	132	3%
		(39) T12 PR48 q8	17	266	6%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	3	66	5%
		(68) SIM12 PR48	3	66	5%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 201: RELAPSE

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	7	109	6%
		(7) SOF24 + LDV24	0	109	0%
		(10) SOF12 + LDV12 + RBV12	4	111	4%
		(11) SOF24 + LDV24 + RBV24	0	111	0%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	0	95	0%
Bacon et al., 2011 RESPOND2	1	(1) PR48	8	80	10%
		(74) B32 PR36-48 RGT	17	162	10%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	2	77	3%
		(10) SOF12 + LDV12 + RBV12	3	77	4%
Dieterich et al., 2014-2+3+4	1	(69) SIM12 PR24-48 RGT or SIM12 PR48	4	53	8%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	3	79	4%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	9	10	90%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Forns et al., PROMISE	1	(1) PR48	45	133	34%
		(42) SIM12 PR24-48 RGT	46	260	18%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	7	103	7%
Jensen et al., 2015-1 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	8	354	2%
		(18) DCV24 + ASU24 + PR24	0	44	0%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	6	87	7%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	2	47	4%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12(50 mg q.d.)	3	33	9%
		(59) GRZ18 + ELB18 (50 mg q.d.)	0	32	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	0	32	0%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	33	0%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	1	19	5%
		(10) SOF12 + LDV12 + RBV12	0	21	0%
Lok et al., 2014 DUAL A2	1	(17) DCV24 + ASU24	1	20	5%
		(18) DCV24 + ASU24 + PR24	1	21	5%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	7	205	3%
Mizokami et al., 2015-1	1	(10) SOF12 + LDV12 + RBV12	0	88	0%
Mizokami et al., 2015-2	1	(10) SOF12 + LDV12 + RBV12	0	87	0%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Molina et al., 2015 PHOTON-2	2+3	(4) SOF24 + RBV24	6	48	13%
Muir et al., 2015 UNITY-2	3	(25) DCV12 + ASU12 + BEC12 + RBV12	1	45	2%
		(26) DCV12 + ASU12 + BEC12	5	45	11%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	7	51	14%
Omata et al., 2014	2	(3) SOF12 + RBV12	3	63	5%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pearlman et al., 2015	1	(5) SIM12 + SOF12	3	36	8%
		(40) SOF12 + PR12	2	14	14%
Pol et al., 2015	1	(40) SOF12 + PR12	17	80	21%
Poordad et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	6	103	6%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	43	384	11%
		(68) SIM12 PR48	43	379	11%
Ruane et al., 2014	4	(3) SOF12 + RBV12	7	17	41%
		(4) SOF24 + RBV24	2	15	13%
Sulkowski et al., 2014-3	3	(4) SOF24 + RBV24	1	17	6%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	1	51	2%
Zeuzem et al., 2014 ASPIRE	1	(68) SIM12 PR48	6	66	9%
		(1) PR48	12	66	18%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	28	132	21%
		(39) T12 PR48 q8	10	266	4%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	7	297	2%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 202: MORTALITY — ALL-CAUSE(S) AND LIVER-RELATED

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	MORTALITY: ALL CAUSES			MORTALITY: LIVER-RELATED		
			n	N	%	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	0	109	0%	0	109	0%
		(7) SOF24 + LDV24	0	109	0%	0	111	0%
		(10) SOF12 + LDV12 + RBV12	0	111	0%	0	109	0%
		(11) SOF24 + LDV24 + RBV24	0	111	0%	0	111	0%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	NR			0	95	0%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	0	79	0%	0	79	0%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	1	398	0%	0	398	0%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	0	87	0%	0	87	0%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	0	47	0%	NR		
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%	0	19	0%
		(10) SOF12 + LDV12 + RBV12	0	21	0%	0	21	0%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	0	33	0%	0	33	0%
		(59) GRZ18 + ELB18 (50 mg q.d.)	0	32	0%	0	32	0%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	1	32	3%	1	32	3%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	33	0%	0	33	0%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	0	20	0%	0	20	0%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	0	21	0%	0	21	0%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0%	0	205	0%
Mizokami et al., 2015	1	(6) SOF12 + LDV12	0	60	0%	0	60	0%
Mizokami et al., 2015	1	(10) SOF12 + LDV12 + RBV12	0	87	0%	0	87	0%
Molina et al., 2015 PHOTON-2	2+3	(4) SOF24 + RBV24	0	48	0%	0	48	0%
Nelson D. et al., 2015 ALLY-3	3	(19) DCV12 + SOF12	0	51	0%	NR		
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	0	80	0%	0	80	0%
Poordad et al., 2015 UNITY-1	1	(26) DCV12 + ASU12 + BEC12	1	312	0%	0	103	0%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	4	384	1%	NR		
		(68) SIM12 PR48	0	379	0%			

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	MORTALITY: ALL CAUSES			MORTALITY: LIVER-RELATED		
			n	N	%	n	N	%
Sulkowski et al., 2014-3	3	(4) SOF24 + RBV24	0	17	0%	0	17	0%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	297	0%	0	297	0%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 203: SERIOUS ADVERSE EVENTS

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	0	109	0%
		(10) SOF12 + LDV12 + RBV12	0	111	0%
		(7) SOF24 + LDV24	6	109	6%
		(11) SOF24 + LDV24 + RBV24	3	111	3%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	2	95	2%
Bacon et al., 2011 RESPOND2	1	(1) PR48	4	80	5%
		(74) B32 PR36-48 RGT	16	162	10%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	8	77	10%
		(10) SOF12 + LDV12 + RBV12	4	78	5%
Forns et al., 2014 PROMISE	1	(1) PR48	10	133	8%
		(42) SIM12 PR24-48 RGT	14	260	5%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	4	79	5%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	5	103	5%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	22	398	6%
Kumada et al., 2014	1b	(17) DCV24 + ASU24	4	87	5%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	4	47	9%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	1	19	5%
		(10) SOF12 + LDV12 + RBV12	1	21	5%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Lawitz et al., 2014 COSMOS	1	(72) SOF12 + SIM12 + RBV12	0	27	0%
Lawitz et al., 2014 COSMOS	1	(5) SIM12 + SOF12	0	14	0%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	1	33	3%
		(59) GRZ18 + ELB18 (50 mg q.d.)	1	32	3%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	2	32	6%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	0	33	0%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	2	20	10%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	0	21	0%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	11	205	5%
Molina et al., 2015 PHOTON-2	2+3	(4) SOF24 + RBV24	5	55	9%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	1	80	1%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	33	384	9%
		(68) SIM12 PR48	8	379	2%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	1	41	2%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	2	51	4%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	6	297	2%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	7	132	5%
		(39) T12 PR48 q8	33	266	12%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	4	66	6%
		(68) SIM12 PR48	7	66	11%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 204: ADVERSE EVENT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	73	109	67%
		(7) SOF24 + LDV24	88	109	81%
		(10) SOF12 + LDV12 + RBV12	96	111	86%
		(11) SOF24 + LDV24 + RBV24	100	111	90%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	74	95	78%
Bacon et al., 2011 RESPOND2	1	(1) PR48	77	80	96%
		(74) B32 PR36-48 RGT	160	162	99%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	67	77	87%
		(10) SOF12 + LDV12 + RBV12	75	78	96%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	63	79	80%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	10	10	100%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	9	9	100%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	8	9	89%
Forns et al., 2014 PROMISE	1	(1) PR48	125	133	94%
		(42) SIM12 PR24-48 RGT	253	260	97%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	92	103	89%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	393	398	99%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	45	47	96%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	7	19	37%
		(10) SOF12 + LDV12 + RBV12	12	21	57%
Lawitz et al., 2014 COSMOS	1	(5) SIM12 + SOF12	11	14	79%
		(72) SOF12 + SIM12 + RBV12	24	27	89%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12 (50 mg q.d.)	25	33	76%
		(59) GRZ18 + ELB18 (50 mg q.d.)	26	32	81%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	25	32	78%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	31	33	94%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	20	20	100%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	21	21	100%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	167	205	81%
Molina et al., 2015 PHOTON-2	2+3	(4) SOF24 + RBV24	47	55	85%
Pol et al., 2015	1	(40) SOF12 + PR12	71	80	89%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	371	384	97%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
		(68) SIM12 PR48	347	379	92%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	37	41	90%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	41	51	80%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	271	297	91%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	126	132	95%
		(39) T12 PR48 q8	260	266	98%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	63	66	95%
		(68) SIM12 PR48	63	66	95%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 205: FATIGUE

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1	(6) SOF12 + LDV12	23	109	21%
		(10) SOF12 + LDV12 + RBV12	45	111	41%
		(7) SOF24 + LDV24	26	109	24%
		(11) SOF24 + LDV24 + RBV24	50	111	45%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	15	95	16%
Bacon et al., 2011 RESPOND2	1	(1) PR48	40	80	50%
		(74) B32 PR36-48 RGT	87	162	54%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	15	77	19%
		(10) SOF12 + LDV12 + RBV12	7	78	9%
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	22	79	28%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	4	10	40%
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	7	9	78%
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	1	9	11%
Forns et al., 2014 PROMISE	1	(1) PR48	58	133	44%
		(42) SIM12 PR24-48 RGT	84	260	32%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	46	103	45%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	165	398	41%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	15	47	32%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%
Lawitz et al., 2014 LONESTAR	1	(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2015 C-WORTHY-4	1	(57) GRZ12 + ELB12 (50 mg q.d.)	9	33	27%
		(59) GRZ18 + ELB18 (50 mg q.d.)	8	32	25%
		(63) GRZ12 + ELB12 (50 mg q.d.) + RBV12	6	32	19%
		(65) GRZ18 + ELB18 (50 mg q.d.) + RBV18	15	33	45%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	2	20	10%
Lok et al., 2014 QUAD B2	1	(18) DCV24 + ASU24 + PR24	5	21	24%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	45	205	22%
Molina et al., 2015 PHOTON-2	2+3	(4) SOF24 + RBV24	11	55	20%
Osinusi et al., 2014 SYNERGY	1	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015 NA	1	(40) SOF12 + PR12	34	80	43%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	146	384	38%
		(68) SIM12 PR48	120	379	32%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	19	41	46%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	13	51	25%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	99	297	33%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	53	132	40%
		(39) T12 PR48 q8	145	266	55%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	29	66	44%
		(68) SIM12 PR48	26	66	39%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 206: PRURITUS

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Afdhal et al., 2014 ION-2	1a, 1b	(6) SOF12 + LDV12	5	109	5%
		(10) SOF12 + LDV12 + RBV12	10	111	9%
		(7) SOF24 + LDV24	2	109	2%
		(11) SOF24 + LDV24 + RBV24	10	111	9%
Andreone et al., 2014 PEARL-II	1b	(14) PAR/RIT12 + OMB12 + DAS12	8	95	8%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	7	77	9%
		(10) SOF12 + LDV12 + RBV12	22	78	28%
Gane et al., 2013-2 ELECTRON	1a,b	(3) SOF12 + RBV12	2	10	20%
Gane et al., 2014-2 ELECTRON	1a,b	(10) SOF12 + LDV12 + RBV12	0	9	0%
Gane et al., 2014-3 ELECTRON	1a,b	(10) SOF12 + LDV12 + RBV12	0	9	0%
Forns et al., 2014 PROMISE	1	(1) PR48	37	133	28%
		(42) SIM12 PR24-48 RGT	72	260	28%
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	12	103	12%
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	104	398	26%
Lawitz et al., 2014 LONESTAR	1a, 1b	(6) SOF12 + LDV12	1	19	5%
		(10) SOF12 + LDV12 + RBV12	0	21	0%
Lawitz et al., 2014 COSMOS	1a, 1b	(5) SIM12 + SOF12	2	14	14%
		(72) SOF12 + SIM12 + RBV12	2	27	7%
Lawitz et al., 2015-2 C-WORTHY	1	(57) GRZ12 + ELB12(50 mg q.d.)	2	33	6%
		(59) GRZ18 + ELB18(50 mg q.d.)	1	32	3%
		(63) GRZ12 + ELB12(50 mg q.d.) + RBV12	0	32	0%
		(65) GRZ18 + ELB18(50 mg q.d.) + RBV18	10	33	30%
Lok et al., 2014 DUAL A2	1b	(17) DCV24 + ASU24	1	20	5%
Lok et al., 2014 QUAD B2	1a, 1b	(18) DCV24 + ASU24 + PR24	8	21	38%
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	14	205	7%
Osinusi et al., 2014 SYNERGY	1a, 1b	(6) SOF12 + LDV12	0	14	0%
Pol et al., 2015	1	(40) SOF12 + PR12	12	80	15%
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	170	384	44%
		(68) SIM12 PR48	122	379	32%
Sulkowski et al., 2014-3	2+3	(4) SOF24 + RBV24	2	41	5%
Wyles et al., 2015	1	(10) SOF12 + LDV12 + RBV12	3	51	6%
Zeuzem et al., 2014 SAPPHIRE-II	1a, 1b	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	41	297	14%

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	n	N	%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	36	132	27%
		(39) T12 PR48 q8	138	266	52%
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	11	66	17%
		(68) SIM12 PR48	20	66	30%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 207: NEUTROPENIA/THROMBOCYTOPENIA

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	NEUTROPENIA			THROMBOCYTOPENIA		
			n	N	%	n	N	%
Bacon et al., 2011 RESPOND2	1	(1) PR48	8	80	10%	NR		
		(74) B32 PR36-48 RGT	23	162	14%			
Forns et al., 2015 C-SALVAGE	1	(23) GRZ12 + ELB12 + RBV12	1	79	1%	1	79	1%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%	NR		
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%	NR		
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%	NR		
Forns et al., 2014 PROMISE	1	(1) PR48	29	133	22%	NR		
		(42) SIM12 PR24-48 RGT	46	260	18%			
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	88	398	22%	16	398	4%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	11	47	23%	7	47	15%
Lawitz et al., 2014 COSMOS	1	(5) SIM12 + SOF12	0	14	0%	NR		
		(72) SOF12 + SIM12 + RBV12	0	27	0%			
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	0	205	0%	NR		
Pol et al., 2015 NA	1	(40) SOF12 + PR12	18	80	23%	NR		
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	52	384	14%	36	384	9%
		(68) SIM12 PR48	69	379	18%	25	379	7%
Zeuzem et al., 2011 REALIZE	1	(1) PR48	14	132	11%	NR		
		(39) T12 PR48 q8	38	266	14%			
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	11	66	17%	NR		

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	NEUTROPENIA			THROMBOCYTOPENIA		
			n	N	%	n	N	%
		(68) SIM12 PR48	18	66	27%			

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 208: FLU-LIKE SYMPTOMS/SUICIDAL IDEATION

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	FLU-LIKE SYMPTOMS			SUICIDAL IDEATION		
			n	N	%	n	N	%
Bacon et al., 2011 RESPOND2	1	(1) PR48	20	80	25%	0	80	0%
		(74) B32 PR36-48 RGT	38	162	23%	2	162	1%
Gane et al., 2013-2 ELECTRON	1	(3) SOF12 + RBV12	0	10	0%	NR		
Gane et al., 2014-2 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%	NR		
Gane et al., 2014-3 ELECTRON	1	(10) SOF12 + LDV12 + RBV12	0	9	0%	NR		
Forns et al., 2014 PROMISE	1	(1) PR48	27	133	20%	NR		
		(42) SIM12 PR24-48 RGT	78	260	30%			
Jensen et al., 2015 HALLMARK-QUAD	1+4	(18) DCV24 + ASU24 + PR24	89	398	22%	NR		
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	NR			0	19	0%
		(10) SOF12 + LDV12 + RBV12				1	21	5%
Lawitz et al., 2014	2+3	(40) SOF12 + PR12	26	47	55%	NR		
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	7	205	3%	NR		
Pol et al., 2015 NA	1	(40) SOF12 + PR12	15	80	19%	NR		
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	66	384	17%	NR		
		(68) SIM12 PR48	62	379	16%			
Zeuzem et al., 2011 REALIZE	1	(1) PR48	33	132	25%	NR		
		(39) T12 PR48 q8	85	266	32%			
Zeuzem et al., 2014 ASPIRE	1	(1) PR48	13	66	20%	NR		
		(68) SIM12 PR48	16	66	24%			

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q12 = every 12 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 209: EPOETIN USE/BLOOD TRANSFUSION

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	EPOETIN USE			BLOOD TRANSFUSION		
			n	N	%	n	N	%
Bacon et al., 2011 RESPOND2	1	(1) PR48	17	80	21%	0	80	0%
		(74) B32 PR36-48 RGT	66	162	41%	3	162	2%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	0	77	0%	0	77	0%
		(10) SOF12 + LDV12 + RBV12	0	78	0%	1	78	1%
Lawitz et al., 2014 LONESTAR	1	(6) SOF12 + LDV12	0	19	0%	NR		
		(10) SOF12 + LDV12 + RBV12	0	21	0%			
Reddy et al., 2015 ATTAIN	1	(39) T12 PR48 q8	25	384	7%	35	384	9%
		(68) SIM12 PR48	14	379	4%	3	379	1%
Zeuzem et al., 2014 SAPPHIRE-II	1	(15) PAR/RIT12 + OMB12 + DAS12 + RBV12	0	297	0%	0	297	0%

ASU = asunaprevir; B = boceprevir; BEC = beclabuvir; b.i.d. = twice daily; DAS = dasabuvir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; q8 = every 8 hours; q.d. = once daily; RBV = ribavirin; RGT = response-guided therapy; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir; T = telaprevir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

TABLE 210: HEPATIC CARCINOMA/HEPATIC CIRRHOSIS/LIVER TRANSPLANT

AUTHOR, YEAR, STUDY NAME	GENOTYPE	TREATMENT	HEPATIC CARCINOMA			HEPATIC CIRRHOSIS			LIVER TRANSPLANT		
			n	N	%	n	N	%	n	N	%
Bourlière et al., 2015 SIRIUS	1	(7) SOF24 + LDV24	1	78	1%	0	78	0%	NR		
		(10) SOF12 + LDV12 + RBV12	0	77	0%	1	77	1%			
Forns et al., 2014 PROMISE	1	(42) SIM12 PR24-48 RGT	15	260	6%	NR			NR		
Jacobson et al., 2013 FUSION	2+3	(3) SOF12 + RBV12	NR			3	103	3%	NR		
Kumada et al., 2014 No name	1b	(17) DCV24 + ASU24	0	87	0%	NR			NR		
Manns et al., 2014 HALLMARK-DUAL	1b	(17) DCV24 + ASU24	3	205	1%	NR			0	205	0

ASU = asunaprevir; DCV = daclatasvir; ELB = elbasvir; GRZ = grazoprevir; LDV = ledipasvir; NR = not reported; OMB = ombitasvir; PAR = paritaprevir; PR = pegylated interferon plus ribavirin; RBV = ribavirin; RIT = ritonavir; SIM = simeprevir; SOF = sofosbuvir.
Note: Please refer to Treatment Regimen Nomenclature table for description of dosages.

APPENDIX 14: SUMMARY OF INCLUDED STUDIES BY OUTCOMES

TABLE 211: TREATMENT-NAIVE

TREATMENT-NAIVE STUDY/OUTCOME	SUSTAINED VIROLOGIC RESPONSE	ANEMIA	DEPRESSION	RASH
Included studies in the network meta-analysis				
Afdhal et al., 2014 ION-1	X	X		
Buti et al., 2014 OPTIMIZE	X	X		
Dieterich et al., 2014	X			
Feld et al., 2014 SAPPHIRE-I	X	X		X
Ferenci et al., 2014 PEARL-III	X	X		X
Ferenci et al., 2014 PEARL-IV	X	X		
Fried et al., 2013 PILLAR	X	X	X	
Gane et al., 2013 ELECTRON	X	X	X	
Gane et al., 2014 ELECTRON	X	X	X	X
Jacobson et al., 2011 ADVANCE	X	X	X	
Jacobson et al., 2014 QUEST-1	X	X		
Kohli et al., 2015	X			X
Kowdley et al., 2013 ATOMIC	X	X	X	X
Kowdley et al., 2014 ION-3	X	X		
Kumada et al., 2014	X			
Lalezari et al., 2015	X	X	X	X
Lawitz et al., 2013 PROTON	X	X		X
Lawitz et al., 2013 NEUTRINO	X	X	X	X
Lawitz et al., 2013 FISSION	X	X		
Lawitz et al., 2014 COSMOS	X			
Lawitz et al., 2014 LONESTAR	X	X		
Manns et al., 2014 HALLMARK-DUAL	X		X	
Manns et al., 2014 QUEST-2	X	X		
Marcellin et al., 2011	X	X	X	
Mizokami et al., 2015	X			
Molina et al., 2015 PHOTON-2	X			
Nelson et al., 2015 ALLY-3	X			
Omata et al., 2014	X			
Osinusi et al., 2013 SPARE-1	X	X		X
Osinusi et al., 2013 SPARE-2	X	X		
Osinusi et al., 2015	X			
Pearlman et al., 2015	X			
Poordad et al., 2011 SPRINT2	X	X	X	
Rodriguez-Torres et al., 2015		X	X	
Ruane et al., 2014	X			
Sulkowski et al., 2013a	X	X	X	
Sulkowski et al., 2013b	X	X	X	
Sulkowski et al., 2014a	X	X	X	X

TREATMENT-NAIVE STUDY/OUTCOME	SUSTAINED VIROLOGIC RESPONSE	ANEMIA	DEPRESSION	RASH
Sulkowski et al., 2014 b	X	X	X	X
Zeuzem et al., 2014	X			
Not included in the network meta-analysis				
Hassanein et al., 2015	X			
Lawitz et al., 2015 C-WORTHY	X			X
Muir et al., 2015 UNITY-2	X			
Poordad et al., 2015 UNITY-1	X			
Sulkowski et al., 2015 C-WORTHY	X			X
Zeuzem et al., 2015 C-EDGE	X			

TABLE 212: TREATMENT-EXPERIENCED

TREATMENT-EXPERIENCED STUDY/OUTCOME	SUSTAINED VIROLOGIC RESPONSE	ANEMIA	DEPRESSION	RASH
Included studies in the network meta-analysis				
Afdhal et al., 2014 ION-2	X			X
Andreone et al., 2014 PEARL-II	X			X
Bacon et al., 2011 RESPOND2	X		X	X
Bourlière et al., 2015 SIRIUS	X			
Dieterich et al., 2014	X			
Gane et al., 2013 ELECTRON	X	X	X	X
Gane et al., 2014 ELECTRON	X	X	X	X
Forns et al., 2014 PROMISE	X			X
Jacobson et al., 2013 FUSION	X		X	X
Jensen et al., 2015 HALLMARK-QUAD	X			X
Kumada et al., 2014	X			
Lawitz et al., 2014	X			X
Lawitz et al., 2014 LONESTAR	X			
Lawitz et al., 2014 COSMOS	X			X
Lok et al., 2014 DUAL A2	X			X
Lok et al., 2014 QUAD B2	X			
Manns et al., 2014 HALLMARK-DUAL	X		X	X
Mizokami et al. et al., 2015 NA	X			
Molina et al., 2015 PHOTON-2	X			
Nelson D. et al., 2015 ALLY-3	X			
Omata et al., 2014	X			
Osinusi et al., 2014 SYNERGY	X			X
Pearlman et al., 2015 NR	X			
Pol et al. et al., 2015 NA	X	X		X
Reddy et al., 2015 ATTAIN	X		X	X
Ruane et al., 2014	X			
Sulkowski et al., 2014	X	X	X	X
Wyles et al., 2015 NA	X	X	X	X

TREATMENT-EXPERIENCED STUDY/OUTCOME	SUSTAINED VIROLOGIC RESPONSE	ANEMIA	DEPRESSION	RASH
Zeuzem et al., 2014	X			
Zeuzem et al., 2011 REALIZE	X		X	X
Zeuzem et al., 2014 SAPPHIRE-II	X		X	X
Zeuzem et al., 2014 ASPIRE	X		X	X
Not included in the network meta-analysis				
Forns et al., 2015 C-SALVAGE	X	X		
Lawitz et al., 2015 C-WORTHY	X	X		X
Muir et al., 2015 UNITY-2	X			
Poordad et al. et al., 2015 UNITY-1	X			